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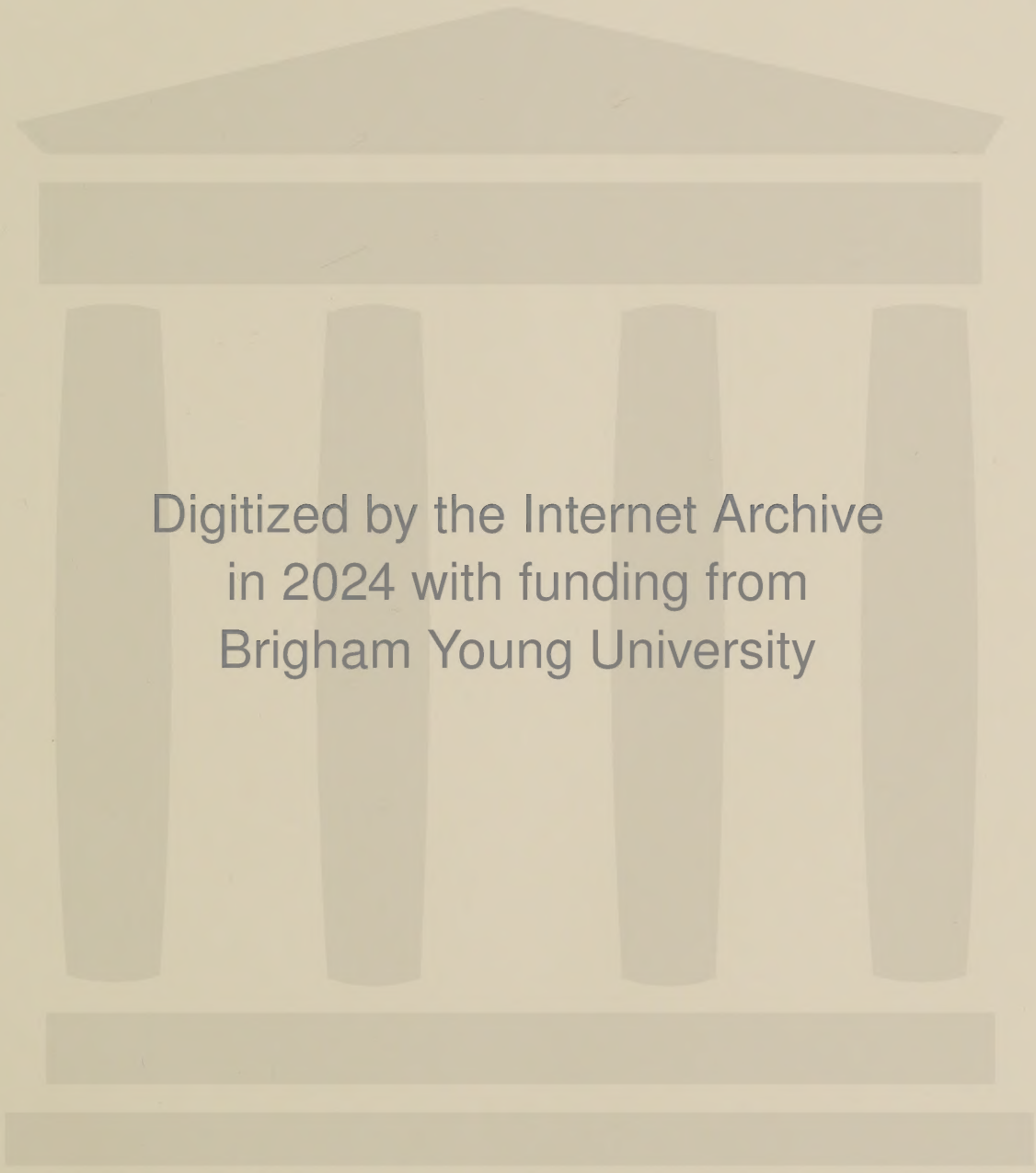
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The UNIVERSITY COURSE of MUSIC STUDY

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1920
Vol. 2

A STANDARD TEXT-WORK

PREPARED BY THE EDITORIAL STAFF OF THE

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Book 3	Book 7	Book 3	Book 7
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Book 1	Book 5	Book 1	Book 5
Book 2	Book 6	Book 2	Book 6
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The UNIVERSITY COURSE of MUSIC STUDY

JUNIOR GRADUATE DIVISION

GRADE THREE

CONTENTS
of Book 2

	Page
THE UNIVERSITY COURSE, STUDENTS' ABRIDGED EDITION	
Chapter VI Repetitive Fingering	13
VII *Leggiero* Passages	24
VIII *Arpeggios* and Alternating Figures	44
IX The *Legato* Touch—Training of the Weaker Fingers	57
X Review and Recreation	66
TWO-MINUTE STORIES FROM MUSIC HISTORY	
Chapter VI The Flutes of Egypt	6
VII From Bow to Harp	7
VIII The Lyre in Greek Music	8
IX Fixing the Scale	9
X A Fiddle with One String	10

Additional Compositions for Supplemental or Optional Use

	Page		Page
Hunting Song, Op. 140, No. 14 — *Gurlitt*	32	Hunting Song, Op. 68, No. 7 — *Schumann*	53

INDEX OF COMPOSITIONS

[References in parentheses are to chapter and page in the complete work; Grade III, if not otherwise indicated]

ALPHABETICALLY BY TITLES

			Page
A			
At Parting	REINECKE	(x-3)	67
D			
Divertissement	WILSON	(vii-12)	36
Dolce Far Niente	WILSON	(ix-8)	63
E			
Etude	CRAMER	(ix-2)	58
H			
Hunting Song, Op. 140, No. 14	GURLITT		32
Hunting Song, Op. 68, No. 7	SCHUMANN		53
I			
In the Mill	REBIKOW	(vi-5)	17
J			
Joyous Moment, Op. 2, No. 7	KRAUSE	(vii-4)	30
L			
Legato Study, *G major*	LEMOINE	(vii-8)	28
M			
Marathon, The	PASCONET	(iv-22)	re
N			
Nun, The	COUPERIN	(x-5)	69

ALPHABETICALLY BY COMPOSERS

		Page
BERGÉ, IRÉNÉE (*Bărе-zhā*)		
Serenade, Song of the Thumb	(ix-5)	60
BERTINI, HENRI JEROME (*Bare-tee'-nee*)		
Study, *E minor*	(xxvi-2)	48
COUPERIN, FRANÇOIS (*Coo-per-an*)		
Nun, The	(x-5)	69
CRAMER, JOHANN BAPTIST (*Crah'-mer*)		
Etude	(ix-2)	58
CZERNY, CARL (*Chair'-nee*)		
Study, Op. 299, No. 32, *C major*	(viii-4)	46
Study, *D major*	(vi-2)	16
Study, *G major*	(vi-3)	14
DUVERNOY, JEAN B. (*Du-vairn-wah*)		
Study, Op. 120, No. 8	(viii-2)	45
GADE, NIELS WILHELM (*Gah-de*)		
Ring Dance ("Christmas")	(viii-10)	54
GURLITT, CORNELIUS (*Goor-lit*)		
Hunting Song, Op. 140, No. 14		32
KARGANOFF, GENARI (*Kar-gän-yôf*)		
Scherzino	(viii-6)	49

Alphabetically by Titles

			Page
R			
Ring Dance ("Christmas")	Gade	(viii-10)	54
S			
Scherzino	Karganoff	(viii-6)	49
Serenade, Song of the Thumb	Bergé	(ix-5)	60
Shöne Minka	Russian Folk Song	(x-2)	67
Song of the Lark	Tschaikowsky	(vii-10)	34
Study, *E minor*	Bertini	(xxvi-2)	48
Study, Op. 299, No. 32, *C major*	Czerny	(viii-4)	46
Study, *D major*	Czerny	(vi-2)	16
Study, *G major*	Czerny	(vi-3)	14
Study, Op. 120, No. 8	Duvernoy	(viii-2)	45
Study	LeCouppey	(vii-2)	25
Study	Mortson	(vi-1)	13
Study	Wilson	(vii-6)	26
W			
Waltz Serenade	Poldini	(x-9)	73
Will-O' the-Wisp	Wilson	(vi-6)	18
Winter Time	Schumann	(vi-9)	21

Alphabetically by Composers

		Page
Krause, A. (*Krow'-ze*)		
Joyous Moment, Op. 2, No. 7	(vii-4)	30
LeCouppey, Felix (*Le-coop'-pay*)		
Study, *G major*	(vii-2)	25
Lemoine, Henri (*Lem-wahn*)		
Legato Study, *G major*	(vii-8)	28
Mortson, R.		
Study	(vi-1)	13
Pasconet, N. (*Pas-co-nay'*)		
Marathon, The	(iv-22)	54
Poldini, Eduard (*Pol-dee'-nee*)		
Waltz Serenade	(x-9)	73
Rebikow, Vladimir (*Ray'-be-kof*)		
In the Mill	(vi-5)	17
Reinecke, Carl (*Ri-ne-kee*)		
At Parting	(x-3)	67
Russian Folk Song		
Schöne Minka	(x-2)	67
Schumann, Robert Alexander		
Hunting Song, Op. 68, No. 7		53
Winter Time	(vi-9)	21
Tschaikowsky, Piotr Ilyitch (*Chy-kof-sky*)		
Song of the Lark	(vii-10)	34
Wilson, Mortimer		
Divertissement	(vii-12)	36
Dolce Far Niente	(ix-8)	63
Study	(vii-6)	26
Will-O'-the-Wisp	(vi-6)	18

PREFATORY COMMENT

In this Student's Abridged Edition of *The* UNIVERSITY COURSE *of* MUSIC STUDY, Piano Series, there is contained all of the essential exercises, études, and pieces in the unabridged work, and in addition a considerable number of supplemental compositions, which can be drawn on at will to lend variety and an opportunity for choice on the part of the teacher in the treatment of the individual problems.

Four books constitute an average year's work, particularly where a student is attending school. Faster progress is possible for those of marked musical aptitude or who devote more than the average amount of time to practice, but thoroughness and a natural development are at all times to be preferred to a superficial development, however rapidly the student may seem to progress.

It is recommended that each pupil shall have a Practice Book, in which the teacher will indicate in writing the work assigned for practice and study, that which is completed, and that which is carried over or elaborated upon from lesson to lesson. It also will serve to show all unfinished work which it is planned to review at a later date. With such a record before student and teacher at each lesson, a comprehensive plan can be pursued in a systematic way.

At the end of a paragraph of text in this edition, a section number enclosed in brackets indicates the location of additional text in the unabridged work.

Under each example number there is found in brackets and in smaller type an exercise or illustration number, by which to locate the same item in the same chapter in the complete edition.

If the number in small type is an "example" number, the material has been carried over from the teachers' manual; if it reads "Sup. Tech." it is from a Technical Supplement.

Thus:

Example No. 2
[Illustration No. 4]

Example No. 2 in this chapter of this edition is Illustration No. 4 in the same chapter of the complete work.

Example No. 5
[Exercise No. 3]

Example No. 5 in this chapter of this edition is Exercise No. 3 in the same chapter of the complete work.

Example No. 8
[Example No. 3]

Example No. 8 in this chapter of this edition is Example No. 3 in the Teachers' Manual for this grade.

Example No. 10
[Sup. Tech. III–7]

Example No. 10 in this chapter of this edition is No. 7 in the Technical Supplement for the Junior Graduate Division (Grade III).

Where no such reference is found it does not indicate the insertion of new material, but the reprinting of earlier exercises for convenience of student and teacher in connection with the Cumulative Review and Elaboration of Fundamental Technic.

A reference to an example in a previous chapter of the SAME edition is as follows:

(1-vii, Ex. 6) means Grade 1, Chapter 7 and Example No. 6.

(2-xii, § 5) indicates Grade 2, Chapter 12 and section 5.

(1-2, p. 36) is a reference to page 36 in Book 2 of Grade I, of this Students' Abridged Edition.

The review of earlier work is always productive of great good, as is the employing of easy material for practice in sight playing. These are two principles most commonly neglected in connection with piano study, and which have much to do with the cultivation of musical intelligence and that degree of musical understanding which is essential to musicianship. A review of the earlier material of *The* UNIVERSITY COURSE with each pupil, will enable any teacher to standardize his instruction, and eventually if he so desires, to combine class instruction with private teaching.

CHAPTER VI

THE FLUTES OF EGYPT

We shall now leave primitive times and put ourselves in touch with Egypt, the great center of civilization in antiquity. The Greek word *aulos*, translated flute, applies to instruments played by blowing directly through a tube and also to those instruments which are sounded by means of a reed. The latter type is much the more common. For their instruments the Greeks were indebted mainly to the Egyptians, and the latter ascribed the invention of the flute to the god Osiris. We shall take it as one type of Egyptian musical art.

In making our study we shall use the historian's privilege and in fancy walk the streets of Memphis in the time of Rameses, the greatest king of Egypt. We note a busy life, for the shops are what we consider booths. Through the open fronts we see carpenters, goldsmiths, coopers, painters, brushmakers, plying the tools of their trades; and we also see merchants disputing with their customers over the prices and qualities of the articles offered for sale. But here in the marts of trade are no signs of music.

So on we go, finally to reach the house of a wealthy nobleman who is accustomed to entertain lavishly. Using our mantle of invisibility we enter the house and find the dining hall ablaze with light and crowded with guests who are seated at tables covered with food, fruits, wines, and flowers. At the far end of the hall we see six persons, four women and two men. One of the men sings, claps his hands, and acts as a sort of director of the music; the other man plays the harp, three of the women sing, and the fourth plays the double flute. They are all slaves. The sounds of the flute are sweet, delicate, and thin.

Leaving the nobleman's mansion we pass on to another, the residence of the daughter of the governor of Memphis. Here we find traces of confusion but no gayety. The mistress of the house has passed from life and has been prepared for her last resting place in the great underground tombs. Thither she is to be taken on the morrow. Like all Egyptians she believed that in addition to a physical body she possessed another living though invisible form, a double or dream body, which would inhabit the tomb along with her mummy. Therefore the officers of the household had selected various articles used by the princess, a chair, a wooden head rest, rings, earrings, necklaces, bracelets, combs, jars filled with toilet accessories, bronze mirrors, and, to our delight, two flutes of the type known as double. The inference is that she herself had used these instruments,—for they show traces of the wearing of the holes by fingers—and it is unlikely that an instrument used by a slave would be placed beside a princess in her tomb.

Was she a good, kind, and tender friend and mistress? On her breast is a message to the gods who are to judge her. It reads: "She was Sweet of Heart."

Three thousand years later the tomb was opened and the princess and her belongings were taken away finally to reach a museum in far-off England. Here today one may see those flutes which once a lovely princess of old Egypt sounded with her sweet breath and pressed with her dainty fingers.

Now we can study them at our leisure. There are two of them, made of a plant stalk which had knots such as our wheat stalk has; but these shoots are larger in diameter than our wheat. The knots have been bored through to make a tube open from end to end. One of the little pipes is 17 6/8 inches long, the other 17 5/8 inches; the diameter of the tube is 3/16 of an inch. We wonder that so frail and delicate an instrument has survived for these thirty centuries! One pipe has been pierced with four holes, the other with three. The former sounds the upper notes and is played with the right hand; the latter sounds the lower notes and is held in the left hand.

A closer look shows us that the instruments are not as we saw them when they were lying beside the princess in Memphis. We try to blow them and produce no sound. Ah! the mouthpiece is lacking; and the reed that covered it also is gone. But an enthusiastic student of ancient music comes to the rescue. After a number of experiments he managed to prepare two delicate reeds which he fitted, one to each pipe. The three-holed pipe, taking the sound of the entire pipe as the beginning of a series of tones, gives a tetrachord, but not the regular Greek form to which we are accustomed. We note also that the upper two holes of the three-holed pipe coincide with the lower two of the four-holed pipe, consequently the number of tones is only six:

The four-holed pipe sounds	E♭		G	A♭	B♭	C♭
" three holed " "	E♭	F	G	A♭		

In the early period of music the position of the holes was not fixed, was not calculated scientifically but was probably determined by the hands and fingers of the maker or the performer. In other words, the fingers fixed the position of the holes and, in a sense, also determined the size of successive intervals. On a long flute large fingers would be the more effective on account of the greater distances between the holes. It is probable that the small thin flutes were used by women players.

In the early period of Egyptian music the flute was large. Some Egyptian pictures show pipes probably not less than twenty-four inches in length. (The modern orchestral flute has a length of 26½ inches). In another series of pictures the players are seated, the pipes reaching almost to the floor. Since the number of holes is small, and only the lower tones were easily available, it is probable that the flutes of that time were used for tones in the alto or tenor registers. In a later period a treble flute was added to the series of instruments. The low sounds of these flutes of antiquity were weak and lacking in penetrative power. It is likely, therefore, when we consider that music was so much employed for public functions, religious, warlike, and social, that the upper tones, of a shrill, harmonic quality, were principally used in processions.

In the closing period of Egyptian civilization, when the Ptolemies were the rulers of the country, the Egyptians were accounted the greatest musicians in the world. Music was a feature in all public and social functions, such as were frequent in the luxurious life of the people of Alexandria. No longer was the art of playing the instruments in the hands of slaves. One ancient writer goes so far as to say that in Alexandria, in those days, every man was a master of playing the flute and the lyre.

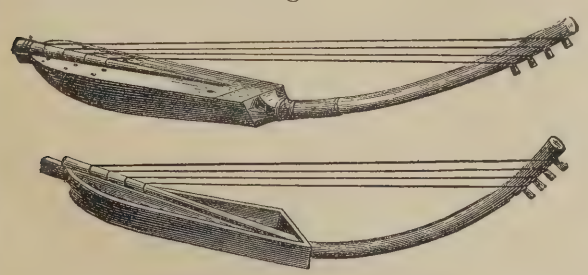
CHAPTER VII

FROM BOW TO HARP

A modern orchestra is seated on a concert stage ready to play. As the eye of the observer sweeps over the men and their instruments it fastens at once on one of the instruments as the most conspicuous, the Harp. Viewed nearer at hand it is still more striking, suggesting a royal lineage by reason of its symmetry, its elegance of form, lightness and grace combined with a feeling of strength, and because of the rich blending of the gold of the frame with the silver, red, blue and yellow of the strings. If antiquity counts the harp has a distinguished lineage, also as the typical instrument of an old civilization.

Its origin is undoubtedly in the bow of primitive man as used for hunting and for war. In the early ages of man's existence on the earth the savages who were the ancestors of later barbarous and civilized peoples gave attention to the wants of the body. The one string of the bow sufficed for that. It made a weapon. But the string, in its ordinary use an inanimate thing of sinew or twisted hide, has also a mysterious, impalpable something which was outside the physical experience of the old-time hunter. It has a sound, a sharp twang that pleases the ear. It is a *voice*. Some hunter or warrior, more inquisitive than others, by chance or design, put another string to a bow, a shorter one. And lo! Two sounds! What he now has is not a bow but something which he uses solely for pleasure. This marks the beginning of art experience and pursuit; through the thing he has made he pleases himself and others. Such is the mission of all the arts.

From two strings to three seems an easy step although it may have taken a long time. Representations on ancient Egyptian monuments show three-stringed instruments clearly developed from the bow. Some keen-minded man of old Egypt must have felt the comparatively weak tone of the strings stretched over the unchanged bow. After various experiments doubtless he hit upon the idea of placing around one end of the bow a shallow wooden box, the top of thin wood, skin, or parchment. The effect of this was to increase the sound, just as the sound of the strings of the violin, mandolin, and guitar are strengthened by the large bodies of the instruments. Three and four-stringed instruments of this type have been found in tombs. The strings have fallen away into dust but the pegs show the number of strings.



Old Egyptian Instruments

Continuing the study of pictures on Egyptian monuments we find a new shape for the primitive harp, one in which the sound-box is a part of the instrument itself instead of being attached to the bow-stick. Thus:

Primitive Egyptian Harp

Instead of a solid stick, as in the bow, the frame of the primitive harp was built up of thin wood and was therefore hollow, and served as a soundboard or box. Instruments of this shape had six strings fastened to pegs at the top and to the body of the harp at the bottom. These six strings, according to certain investigators, were for the bass tones only. In this respect they correspond to the period when tenor and alto flutes were used; extension of compass to take in treble sounds came later.

Further development of the harp was more rapid. The frame was bent still more, almost to a semicircle, the lower part increased in size and with a flattened end to make it possible to stand alone. This increase in size was probably due to a seeking for a bigger, fuller tone. The makers found that this required a soundbox in keeping with the size of the instrument. The climax was reached in adding to the lower end, that which rested on the floor, a resonance box somewhat in the shape of a kettle drum. With the increase in the size of the harp the compass was extended to the tenor register. The demand for still higher tones brought about the making of smaller, portable harps.

The wood used in the frame of the harp was sycamore which was imported from other countries. (It is interesting to note that the violin makers of the seventeenth and eighteenth centuries occasionally used sycamore for backs of violins instead of the harder curly maple.) The frames were decorated in various ways to attract buyers; a new method of fastening the strings was devised, similar to that employed in modern times. At the climax of the political existence of the old Egyptian empire the large harp stood nearly seven feet in height (about a foot higher than the modern instrument) and was fitted with eighteen bass and tenor strings, some harps having as many as twenty-one and twenty-two strings. (The modern harp has forty-seven strings.) The compass of the eighteen-stringed harp was from B, below the bass clef, to E, second leger line above the staff.

As this was a period of great luxury the frame of the harp became a medium for the most elaborate decoration. All the colors of the rainbow were placed upon it; the makers used veneering of rare woods, inlays of ivory, tortoise shell, and of mother-of-pearl. The

Old Egyptian Harp

bulging sound-box at the bottom became a hollow pedestal for the head of a sphinx or the bust of Pharaoh. The harps of musicians attached to royal person glittered with gold and precious stones.

Comparing the illustration of the ancient Egyptian harp on the previous page with the instrument as we know it today one observes that the former lacks the front pillar or support which is prominent in the latter. Neither in representations in pictures nor in actual relics recovered have any instances been found of this supporting pillar. It must not be concluded that the tension of the strings was weak because of the construction of the frame. An examination of the few instruments which have been recovered shows that the old Egyptian harpmakers knew how to give the frame strength and elasticity and also how to secure resonance. The tuning was by means of pegs, sometimes in two rows. In the back of the frame were openings to give connection with the outside air, as is the case in the modern harp. The strings were made of gut—so far as known no wire-covered strings were used, as is the case today. In one instance a harp discovered in a tomb still had strings. Although three thousand years old they retained the power of sounding when plucked.

Old records indicate that in the matter of technical proficiency Egyptian harp-players, like other craftsmen and artists, were highly skilled. The pottery of Thebes was celebrated in ancient times, and a visit to a museum will show this same degree of skill to be true of other crafts. Gem cutting and the making of jewelry was an art; sculpture was marked by a profusion and delicacy of detail. The musicians of the court were compelled to practise from morning until night—they were slaves—under the direction of an exacting master. A record of their duties indicates that they were allowed scarcely any time for meals. As soon as practice was ended they played in concerts for the king and his guests. Men and women were used, the latter both as instrumentalists and singers.

In the opinion of historians the music of the Egyptians was mainly melodic. Whatever attempts at combination were made were likely in octaves rather than in the style now in use in this country. Pythagoras, the Greek philosopher, was a student in the Egyptian school for priests. From this we infer that his theories may have been founded, to some extent, upon Egyptian practice and teachings. It is probable that the Egyptians were familiar with the division of the octave into seven tones, and the mathematical relations of the fourth, the fifth, and other intervals of the scale, a striking point in the teachings of Pythagoras.

CHAPTER VIII

THE LYRE IN GREEK MUSIC

First of the Greek writers to speak of the lyre is Homer. All through Greek literature the instrument is mentioned in terms of enthusiasm, sharing with the flute the favor of all classes. Undoubtedly it is to be considered as the national instrument of the Greeks especially because it could be used as the companion to their poetry. In later years it has become a sort of symbol of music. However it is not to be understood that the Greeks invented the lyre. The form they favored undoubtedly came to them from Asia. When and where the lyre originated is not possible to say. A close student of the various races of mankind and their contributions to our modern life states as his opinion that the lyre was shaped by the Aryan race, those people who lived in western Asia, from which the European races of today are descended. Some of these people went to India, some to Egypt, others west along the Mediterranean, and still others to the northwest through what is the Russia of today. Thus the idea of the lyre was carried to all parts of the known world.

Another view is that the primitive form took definite shape among the nomadic tribes of Central Asia, members of the Tartar family, who were called "the troubadours of Asia." The lyre is always a companion to the voice, to poetry, for it was not used to produce music independent of singing. It was the ideal instrument for the old bards, to give support to the chanting of old tribal songs.

In a noteworthy book, *The Music of the Bible,* Sir John Stainer, an English musician, presents the idea that the lyre is derived from the primitive bow by bringing the two ends toward each other into a U shape. The next step was to use a crosspiece to hold the ends in position and to fasten strings between the crosspiece and the body of the bow stick, a position convenient for the hands of the player. A third step was to put a soundbox at the curved end to increase the power of the tones made by twanging the strings

Greek Lyre

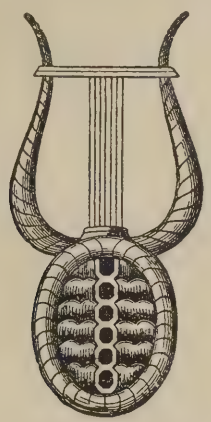
and also as a convenient means to fasten one end of the strings. The latter seems to have been of the same length. This implies that they gave the same pitch unless the lyre was fitted with a device by which the tension of the strings could be changed and unless, also, the thickness of the strings varied. Another method is suggested. by the use of a sloping cross bar, as shown on some pictures in tombs. This would permit the use of strings of different lengths. If the uprights were fitted with

An Asiatic Type of the Early Lyre

notches the crossbar could be fixed there, tightening or loosening the strings according to where it was placed.

As the development of civilization in Egypt preceded that of Greece the historian looks to the former country for the earlier types of the lyre. The first forms show three strings. Gradually this number was increased. An Asiatic type is shown in a painting found in a tomb in Egypt which indicates another type. The frame seems to be in one piece and it is fitted with seven strings. A lyre of a later date has holes in the soundbox for thirteen strings.

The Greeks, as said before, were not the inventors of the lyre, although they did much to develop it. The reason for this is that the lyre fitted their poetic genius as an instrument to accompany the delivery of their songs. The typical form of the Greek lyre differed from that of the Egyptian in having curved arms and a rounded soundbox. This agrees with the story



An Egyptian Lyre

that Apollo made a lyre by fastening horns to the shell of a tortoise and then adding strings. This was termed *Chelys* (*chelus*, a shell). A lyre of this type is in the British Museum and is made of sycamore wood. The cross bar is forked at each end and slips over the points of the uprights. These are fixed in the shell below evidently to carry the vibrations to the latter. The uprights are about fifteen inches in height; the crossbar is about three inches from the top, and the distance between the uprights varies from seven and a half to eight and a half inches.

The early Greek lyres, like those of Egypt, had three and four strings. Homer's lyre is said to have had four which is also true of the lyre of Terpander when, two centuries later than Homer, he gained the prize in a musical contest. But with the true daring of genius Terpander was not satisfied with the instrument as it came to him and added three more strings. The poetess Sappho used a six-stringed lyre, to Terpander's seven Pythagoras added an eighth, and later poets still more. For example Anacreon is said to have used a ten-stringed lyre, a large form called a *magadis*, on which it was possible to divide the string by pressing a bar across the middle to give the octave higher. A device used with certain forms was to make the crossbar free to turn, thus enabling the player to tighten or loosen the strings. A marble relief assigned to the celebrated sculptor Praxiteles shows Apollo contesting with Marsyas as to the superior musical power of the lyre or the lute. The lyre of Apollo is fitted with a device whereby each of the seven strings can be tuned separately by rollers.

It is to be kept in mind by the student that the Greeks did not use the lyre as an independent musical instrument as the violin, harp, and other instruments are employed today. Properly speaking there was no real instrumental music then. The lyre and the flute were used in combination with singing or to furnish preludes and interludes in the style of vocal tunes. For this reason we do not consider the lyre as an instrument important in the development of instrumental music. Its form was not such as to give full-toned sonorous sounds, neither had it a wide compass.

The ancient instrument which was most clearly suited to produce music independent of use with the voice was the lute. In the lyre and the harp the pitch of the string was fixed and but one tone was produced from a single string. The earliest forms of the lute suggest the paddle used in propelling the old-time boats, as if some inventive savage thought of placing a string on it and plucking it. The next step seems to have been to replace the blade of the paddle with a box of wood or one covered with skin in order to increase the power of the sound given out by the strings. Another step in advance was to change the length of the string by means of the fingers, thus making a sound of higher pitch, as is done on the violin, mandolin, or guitar of today. Egyptian representations of this early form of the lute indicate a length of three to four feet and from two to five strings. Certain lines across the neck may indicate frets or simply points at which the fingers should press the strings. It is clear that the principle of producing several sounds from one string is an advance over that of having one string for each sound. This type of instrument furnishes the idea which was developed in important modern stringed instruments.

CHAPTER IX

FIXING THE SCALE

We are so accustomed to the scale C D E F G A B C (to feel that it is the scale natural to the human race. In fact some persons call the series mentioned above the Natural Scale. This view overlooks the fact that in different countries, in different periods, the series of sounds used in music differed both in the number employed and in the order in which they appeared in the series. There was a time when pitch was limited to one definite note, then two notes, three, and finally four which is the first important step in scale making. To this four-note series the name of tetrachord was given.

In shaping the beginnings of our full octave scale man had the human voice and the fingers of the hands as tools; that is he seems to have been led by what the voice could do and by what the fingers could do in the way of placing the holes on some instruments and the strings on others. In the early chanting the voice varied but little from a fixed pitch. This pitch has been variously stated as F, G, and A. (In our time the note A is used as a standard of pitch. It is the note to which orchestral instruments are tuned.) In the days of the three-stringed lyre the tuning was E F A, an interval of a fourth between the lowest and the

highest note. When a fourth string was added G, between F and A, was inserted.

The changes from this early tetrachord are noted in a previous story (Chapter IV). In the course of years, after the time of Terpander and Pythagoras, Greece lost her position as the head of civilization and the center of Greek art and thought was transferred to Alexandria. This was more than three hundred years before Christ. In the great library founded in Alexandria, in 332 B. C., by Alexander the Great, were copies of the works of the famous Greek writers, poets, philosophers, and scientists. To the great misfortune of the world this library was burned when the Romans conquered the city.

In charge of this great collection of manuscripts was a famous scholar named Eratosthenes. Among other duties he devoted himself to a study of the scientific side of music, during the course of which he examined the statements regarding music that he could find in the works of the older philosophers and poets. Another famous musician of the same period was Aristoxenus who was not a mathematician as Eratosthenes was, but a musician and the son of a musician. He taught that the ear was the best judge of musical successions and combinations and was not bound by mathematical calculations. He is said to have written more than four hundred treatises on music of which only three were preserved. These are the oldest musical literature known.

The scholars and scientists of the centuries before Christ argued with each other in regard to the correct division of the octave and held quite different views. Taking the scale from C to its octave above we have the following: C D E F G A B C. The Greek philosophers studied the relations of the different tones to each other. They found that the upper note of the octave was made by a string one-half the length of that which gave the lower note; that the fifth of the series required a string two-thirds of the length of that which gave the first; for the fourth of the series a string three-fourths of the length of that which gave the first. The other intervals were also calculated.

In this work they used a string stretched over a shallow box. This string passed over two small wedge-shaped pieces of wood, called bridges which raised it from the box; the bridges could be moved to any point desired. When the string was pressed at half its length it was found that it sounded the octave higher; other tests gave the other degrees of the scale. It was also noticed that if the whole tones, C-D, D-E, F-G, G-A, A-B, were made exactly the same in size the upper C would be a trifle higher than a true octave. An Alexandrian scientist named Didymus (A. D. 60) proposed to make two of the whole tones just a little smaller. This smaller interval he called a *minor* tone and the unchanged whole tone a *major* tone.

His arrangement was:

$$C_{\text{minor}}\ D_{\text{major}}\ E\ \tfrac{1}{2}\ F_{\text{minor}}\ G_{\text{major}}\ A_{\text{minor}}\ B\ \tfrac{1}{2}\ C$$

Some years later another scientist, Claudius Ptolemy (A. D. 130), also of Alexandria, changed the position of the minor tones. His arrangement was:

$$C_{\text{major}}\ D_{\text{minor}}\ E\ \tfrac{1}{2}\ F_{\text{major}}\ G_{\text{minor}}\ A_{\text{major}}\ B\ \tfrac{1}{2}\ C$$

This is the form in use today. That is, on a piano properly tuned according to scientific rules, the whole tones between D and E and between G and A are just a trifle smaller than those between C and D, F and G, and between A and B. Our ears are not capable of recognizing this fine distinction. But training has caused us to follow the pitch of the different notes as fixed by scientists.

Here then we have the net result of centuries of human experience, from prehistoric times down to about the middle of the second century of the Christian era: The fixing of the relations of the various degrees which make up the octave.

As stated in Story No. 4 the music of the Christian Church was not written in the scale of C but according to different series which were begun on each degree of the scale mentioned above. It will be noted that in each of these series the position of the half-tones varies. These series were called Modes.

1	2	3	4	5	6	7	8
A	B	C	D	E	F	G	A
B	C	D	E	F	G	A	B
C	E	D	F	G	A	B	C

1	2	3	4	5	6	7	8
D	E	F	G	A	B	C	D
E	F	G	A	B	C	D	E
F	G	A	B	C	D	E	F

1	2	3	4	5	6	7	8
G	A	B	C	D	E	F	G

Alongside of the music written in the Church modes was another type, that of the people, from which, in later times, the tunes we know as folk songs were developed. In the course of years these tunes gradually took shape in two principal scales, one beginning on A, the other on C, proceeding as on the white keys of the modern piano. The first is the same as our minor scale without accidentals, known as the natural minor; the other is the same as our major scale, C major by way of example. With the great development of secular music and of the instrumental style in particular, these two scales were favored by composers and by the people.

CHAPTER X

A FIDDLE WITH ONE STRING

We go to a concert and hear a celebrated violinist play. We learn with much interest that the instrument on which he plays was made about 1720, by Stradivarius, in the now famous Italian town of Cremona, and that it is valued at $30,000. Perhaps if we could see the instrument at close view and have it in our own hands we would find little that we should consider remarkable in its appearance, certainly not to justify a value 300 times that of the average violin used by students. It is an instrument with four strings played by a bow. Yet between the making of the first instrument played by a bow and the period in which Stradivarius lived and worked is the lapse of many centuries.

If we should look over the available records from the Egyptian and Chaldean civilizations we find no pictures

of an instrument played by a bow. Lyres, lutes, harps, in various sizes, are there. But the strings of these instruments are plucked by the fingers or by a "pick" as is the mandolin of today. The older Chinese civilization shows record of an instrument of the primitive violin type. This consists of a gourd, covered with skin, to which a long neck is attached. The commonest had two strings played by a bow such as was used for shooting arrows. No mention is made as to the time when the instrument was first used. Among the Greeks no bowed instrument was in use.

One other ancient civilization, that of India, remains for examination. Here, among the lowest classes, the beggars, we find an instrument consisting of a long neck attached to a shallow round soundbox. From the end of the neck to the bottom of the soundbox one string is stretched, passing over a bridge, like the strings on the modern violin. The neck is without frets. From this string sounds are produced by means of a bow shaped like the one used for hunting. If the investigator asks for the story of this instrument all that he can learn from the beggars is that they have had it for centuries. But in time we reach the tradition as to the origin of the instrument:

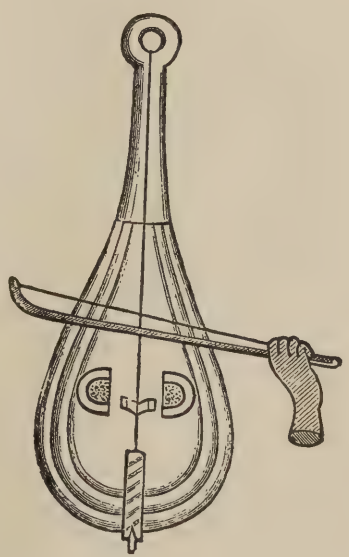
More than seven thousand years ago, that is before the dawn of history, there was a king in the Island of Ceylon, whose name was Ravana. He was famous as a singer and invented an instrument to be played with a bow. To this the name of ravanastron was given. With the aid of the music he brought out of this instrument he was able to propitiate the god of darkness and evil and thus help his people.

The historian asks why this ancient hero of music should have been located on the island of Ceylon and not on the mainland of India. Then he recalls that the Hindoos came into the country now called India, from the interior of Asia, from the north and the west, and conquered the original inhabitants or drove them to the outlying islands or toward Southern China. Some of those who left India went to Ceylon and settled there. The true Ceylonese are not of the Hindoo race and are supposed to be remnants of the original people of India. Those who remained in the country became the lowest, poorest class of the people, still holding on to their habits and ideas, and traditions of a once free existence. So it is supposed that the ravanastron was the typical musical instrument of the ancient inhabitants of India and that the story of Ravana, the king, is one of those myths invented by a people to embody their recollections of a period of glory. In the British Museum is an instrument found among the hill tribes, to the east of India, not of the Hindoo race, which is doubtless one of the ancient forms of the ravanastron. The soundbox is round and is covered with snake skin. Two strings are used; the fingerboard is without frets. The bow is made of bamboo and instead of a string hair is used. The tone is muffled somewhat as the violin of the present day when a mute is put on the bridge.

In those days nations were generally at war with each other. Thus the Hindoos and Persians, as neighbors, made war and then peace. In the latter periods trade was carried on between the two nations. Thus it came about that the ravanastron found its way into Persia, there to undergo some change in shape. Again taking up its wanderings the instrument passed on to the Arabs among whom it went through other changes of form. When these people became Mohammedans and started out to carry the Koran to other nations the ravanastron, in its new form known as the rebab, went with them on their journeys through northern Africa and on into Europe through Spain. Failing in their attempt to conquer France in the time of the grandfather of Charlemagne the Arabs and Moors remained in Spain for a number of years. During this period they had frequent intercourse with the people of Spain, France, and Italy, and left with the latter various examples of their culture. Among these was the rebab, called in later times, the rebec. The number of strings was two and three.

The Rebab, or Rebec

While the rebec was making its way into Europe in company with the Arabians some other descendant of the ravanastron was also passing westward but through the north, doubtless in the track of the Huns who came to Europe in the fourth century. The traditions of Central Europe later collected into the poem called *Nibelungen Lied* refer to the instruments of the minstrels of the time as *fiedel* or *vedel.* For a time the form of the latter was larger and less easily handled than the rebec of the south of Europe.



Earliest Representation of European Fiddle

The name became viol. (The Italian form was *viole*, the French *vielle*. The modern German term, *Geige*, is evidently from the mediaeval name, *gigue*, applied to the rebec.)

Improvements in the form of the viol and the power and quality of tone were due, first to the demands of the players, and second, to the use of the instruments in connection with the church services. The latter demand brought about the making of several sizes to correspond to the parts in vocal music. The shape of the viol differs from that of the violin in that it has

sloping instead of round shoulders, deeper ribs, and a flat back. This shape survives in the instrument of today known as bass viol or double bass.

In the form with which we are familiar the violin dates from 1510–1515. The first instruments of this shape are credited to a lutemaker of Lyons, France, named Tieffenbrucker (Italian name *Duiffoprugcar*) who was probably a Tyrolese. Other investigators assign the invention to Gasparo Bertoletti (called da Salo from the town in which he was born in 1542). He was an instrument maker in the Italian city of Brescia, 1560–1610. Few of his violins are in existence; one of these was in the possession of Ole Bull. Another pioneer in violin making was Andrea Amati who was born in the town of Cremona, Italy, about 1520, and lived there all of his life. Other members of his family, his descendants, carried on his work for upwards of one hundred and fifty years with such success that the name Amati is one of the three to which the title of "master of the first rank" is given. Another Cremonese family, Guarnerius or Guarneri, nearly a hundred years later than Andrea Amati, became masters in the art of violin making. The founder of this family was a pupil of one of the Amatis. The greatest of the Guarnerius family was Giuseppe who was born in 1683 (the date of his death is unknown). He was a pupil of the greatest master of violin making, Antonio Stradivarius. The latter was born at Cremona in 1684. His apprenticeship was served under Nicolo Amati, the most famous of that family. Stradivarius, Guarnerius, and Amati! These three represent the best in violin making. Collectors and artists vie with each other to possess the best specimens from the hands of these masters. For such instruments prices running into many thousands of dollars are paid.

The journey of the one-stringed fiddle of King Ravana, of Ceylon, who lived seven thousand of years ago, to Stradivarius at the height of his career, 1700–1725, is one marked not only by a long lapse of time. It covers wanderings in many countries and among the people of many nations in Asia and Europe; it was in the hands of people who conquered and were conquered; it was despised and in the hands of the lowest and poorest classes; it was taken up by the minstrel favorites of the nobility; it was the servant of the Church; it was the plaything of kings; today it is admired as a work of fine art and is the instrument of heroes of music whom all delight to honor.

VI

REPETITIVE FINGERING

§ 1. Passages requiring repetition of the same tone are frequent in piano music. Such repetitions are to be found at all rates of speed, from the slowest to the most rapid, and their purpose varies from the demands of expressive melody to those of rhythmical interest or of technical display.

Misunderstanding frequently exists as to whether or not the fingers should be changed when playing repeated notes. As far as the piano is concerned the speed of the passage is of no consequence. The mechanism of the modern piano is very responsive, but even so it is obvious that for a note to be sounded again the key must rise a certain distance. When it has risen the necessary distance to make possible another attack, it is immaterial whether the second attack uses the same or a different finger, just so long as the hand or finger is capable of the required speed. Inside the piano the mechanism uses the same lever, the same springs, the same hammer for any number of repeated notes, and as far as speed alone is concerned the fingers, hand, wrist and arm of the player may be regarded as a part of this mechanism.

In rapid and long continued passages using repeated notes it is more often necessary to change the fingers for the sake of endurance, than for speed. Compare the first measures of the two Studies by *Czerny* in this chapter. In the first a change of fingers is indicated because the tone repetitions are continuous for seven measures without a break. To play the passage at a fast rate with one finger would be difficult, not because the piano mechanism would fail to respond, but because of the limitations of the human mechanism. These limitations to muscular endurance require changes of finger, which distributes the tension that otherwise would accumulate. Consider that in the automatic player-piano mechanism there is no such thing as finger changes. One mechanical "finger" for every key does all the work, and this finger can play repeated notes faster than can human fingers, even with changes, and as fast as the mechanism is able to respond. Because it is a machine, it is not subject to fatigue. In the first measure of the second of the *Czerny* Studies the repeated *F*♯ is played by the second finger, and even at a fast rate of speed this is possible because of the shortness of the passage. The note is repeated seven times, followed by a change to another form of technic, and then a period of rest during which the hand has plenty of time to relax and recuperate.

In slow passages of repeated notes neither speed nor endurance is the governing factor for finger

(Continued on page 22)

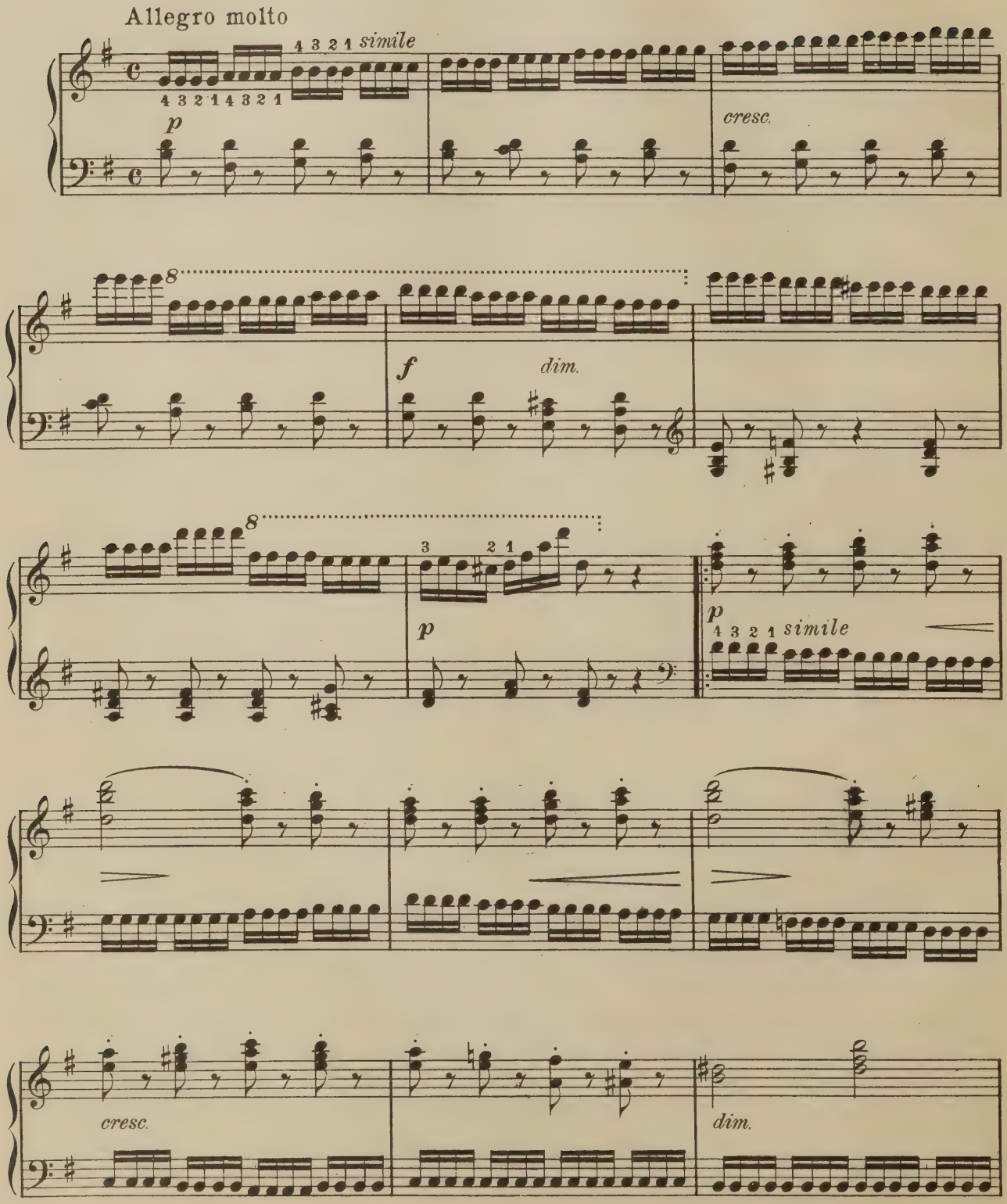
STUDY

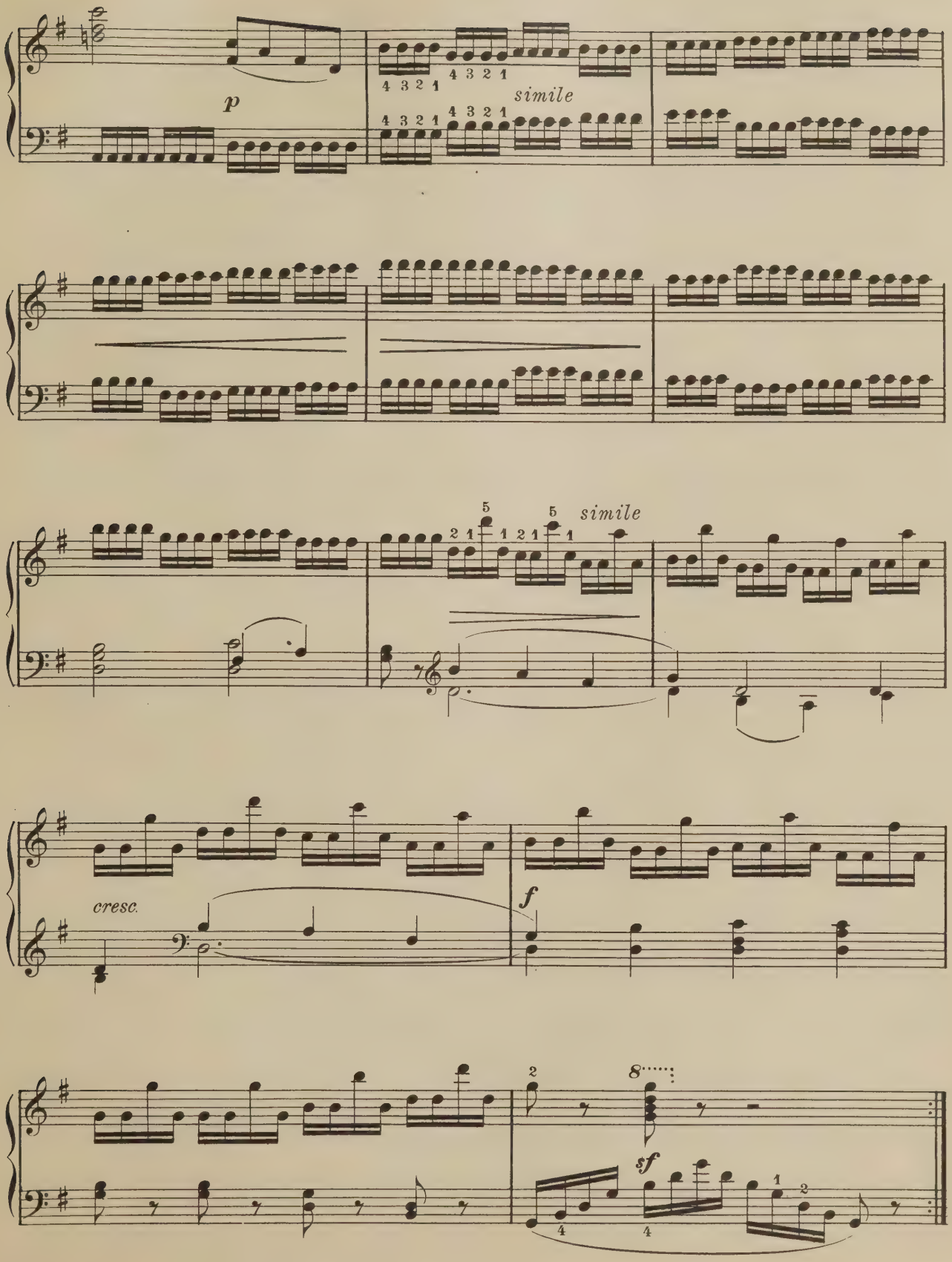
Exercise No. 1] MORTSON

STUDY

TONE REPETITION

CZERNY

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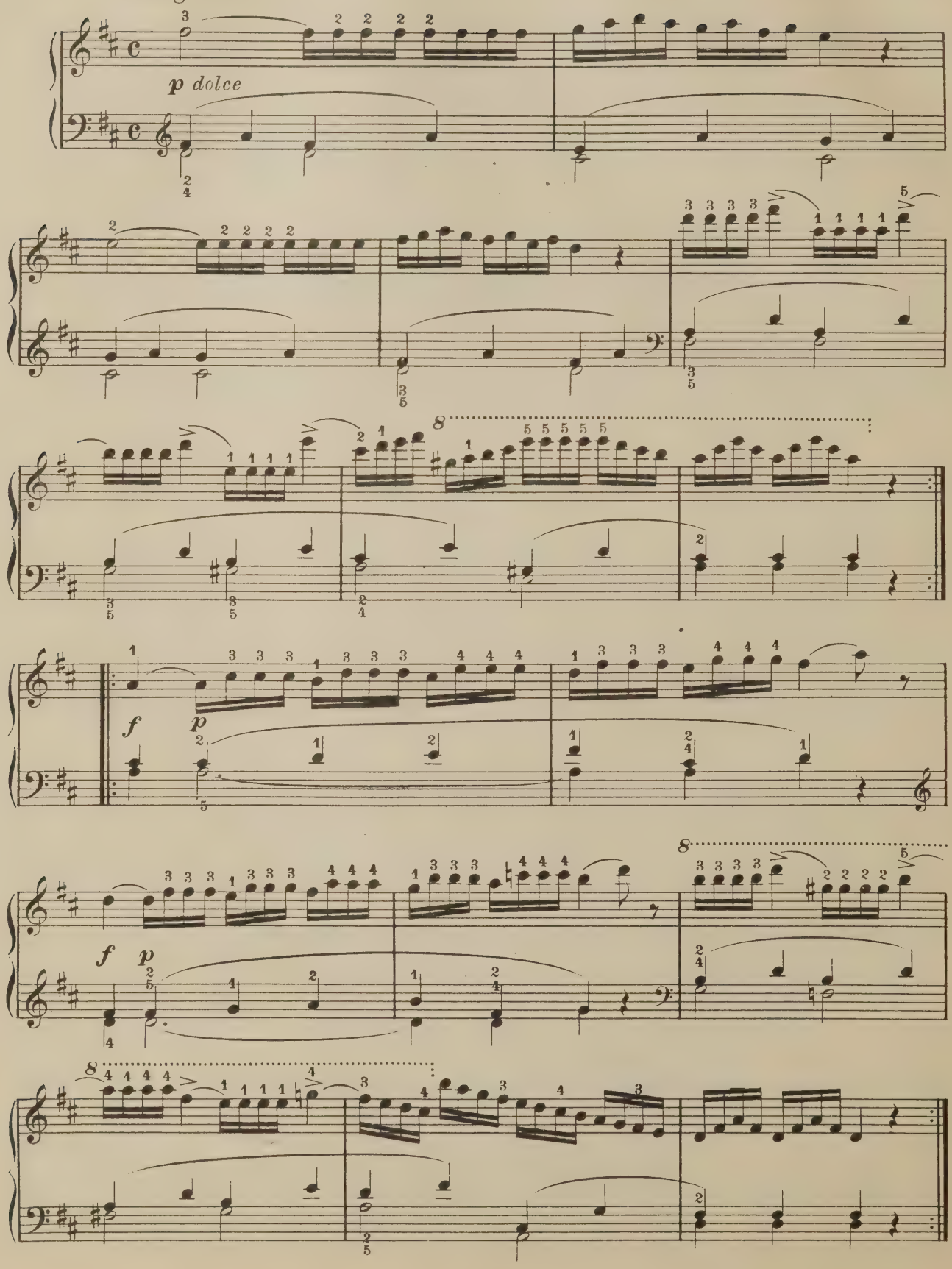
STUDY

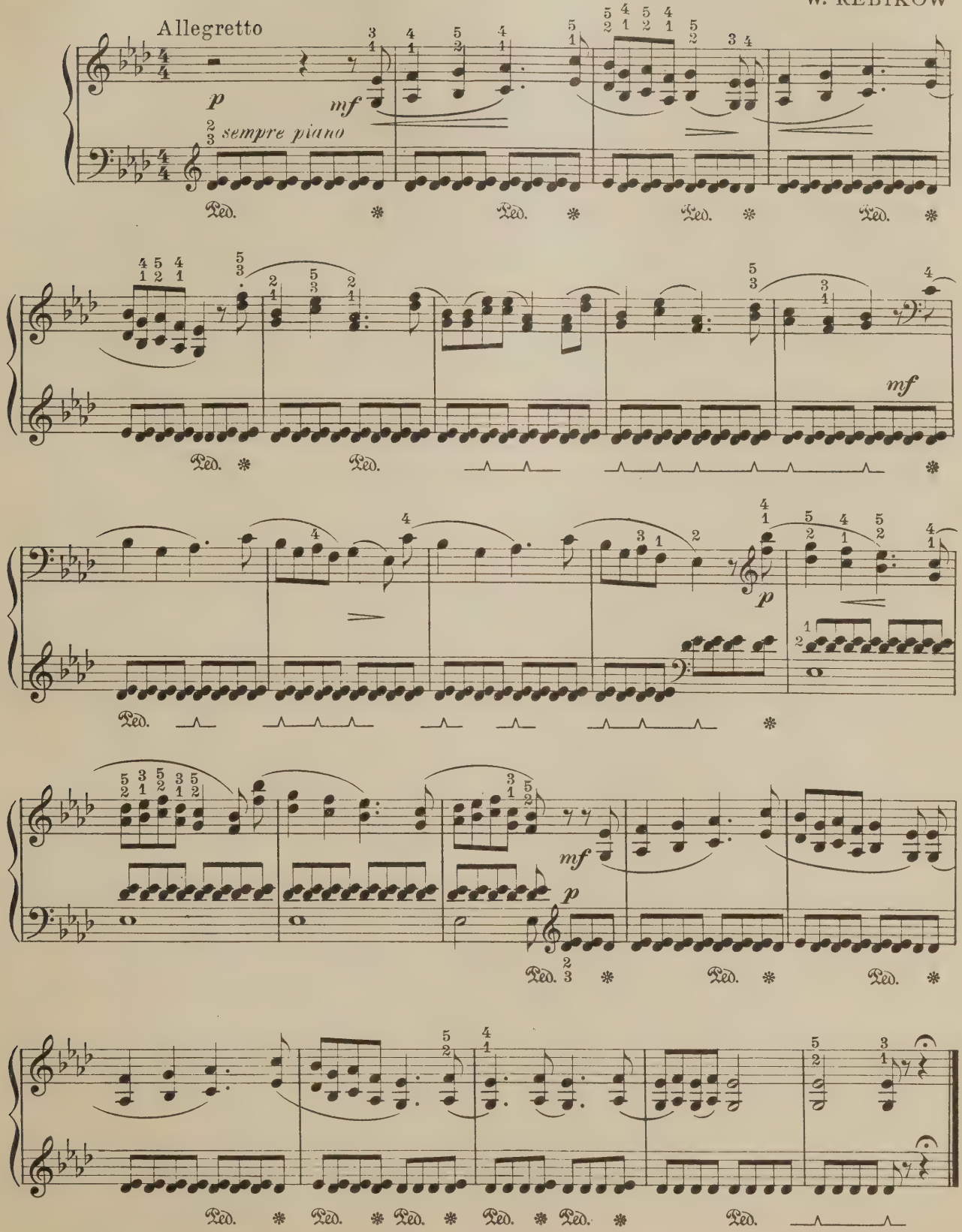
CZERNY

Allegro moderato



IN THE MILL

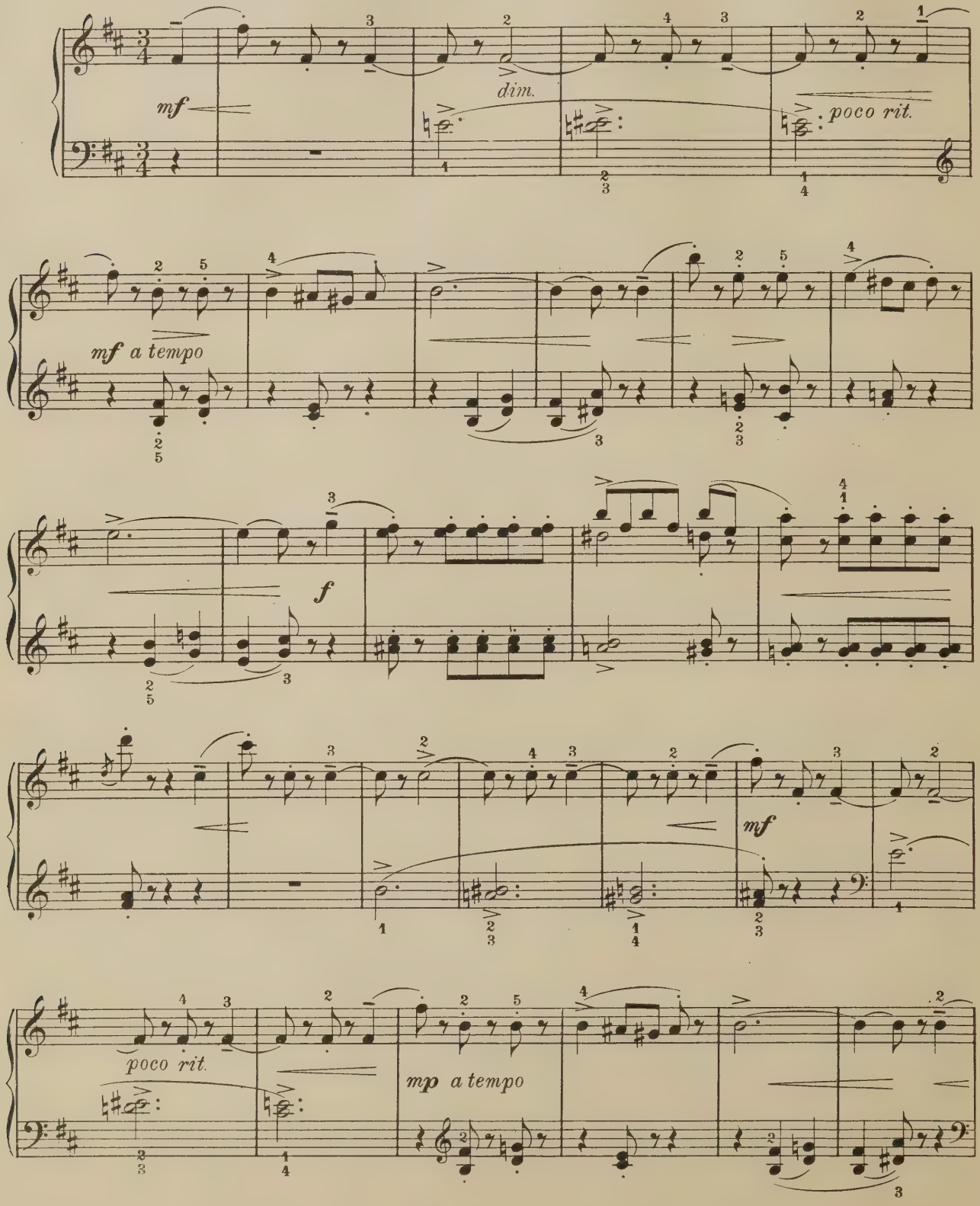
W. REBIKOW

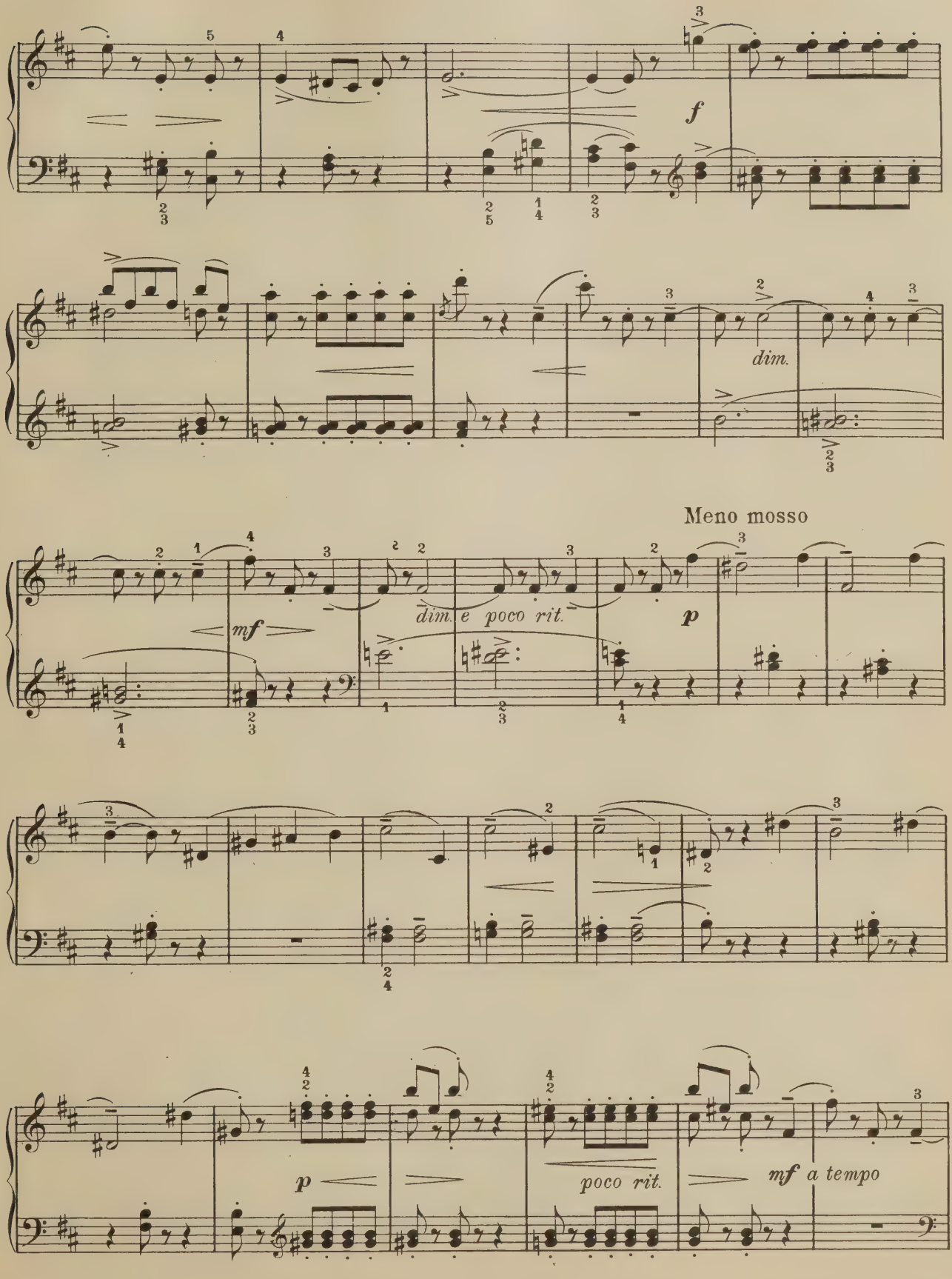


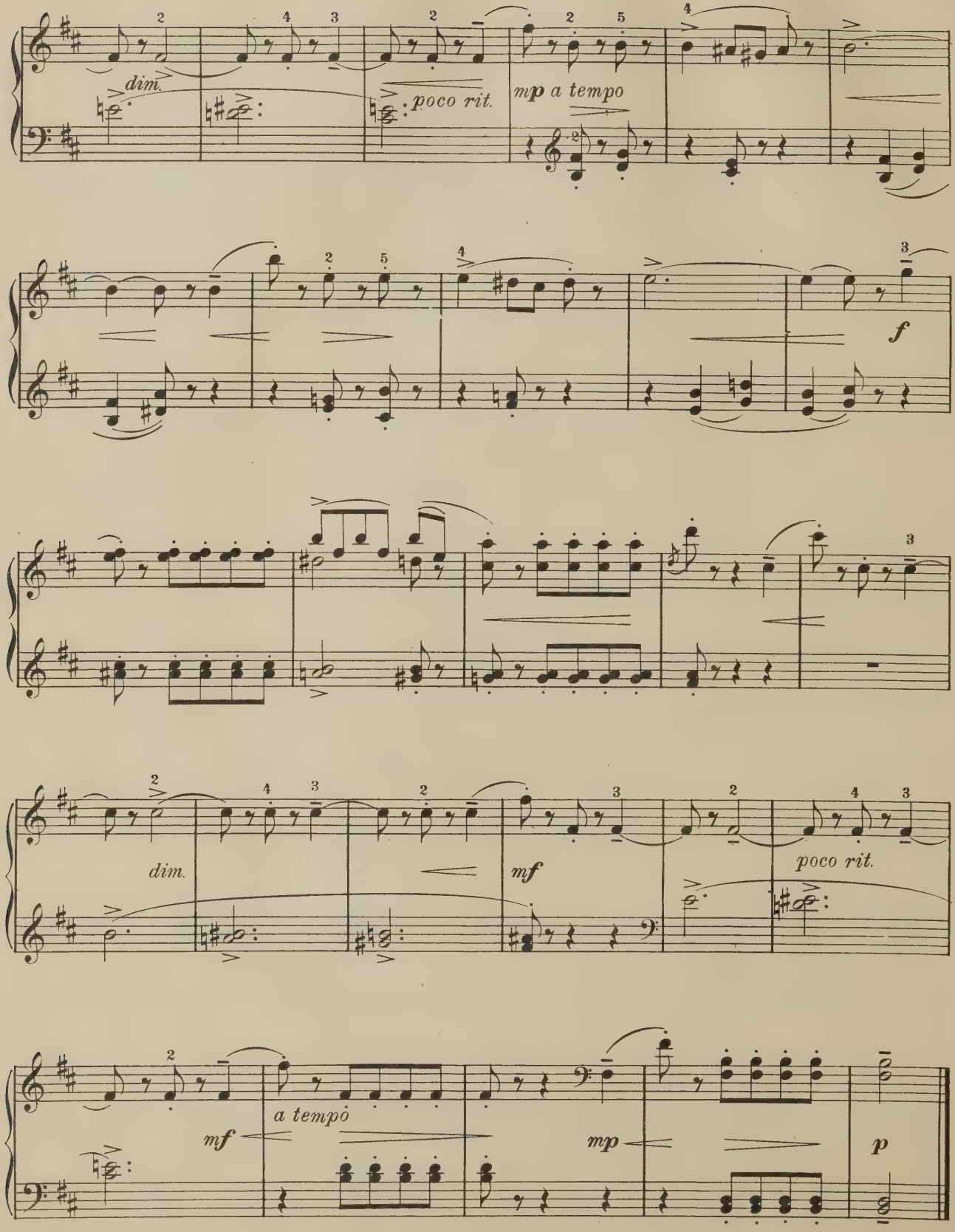
WILL-O'-THE-WISP

MORTIMER WILSON
Op. 43, No. 7

Tempo di valse, non troppo allegro




f
dim.
Meno mosso
mf
dim. e poco rit.
p
p
poco rit.
mf a tempo

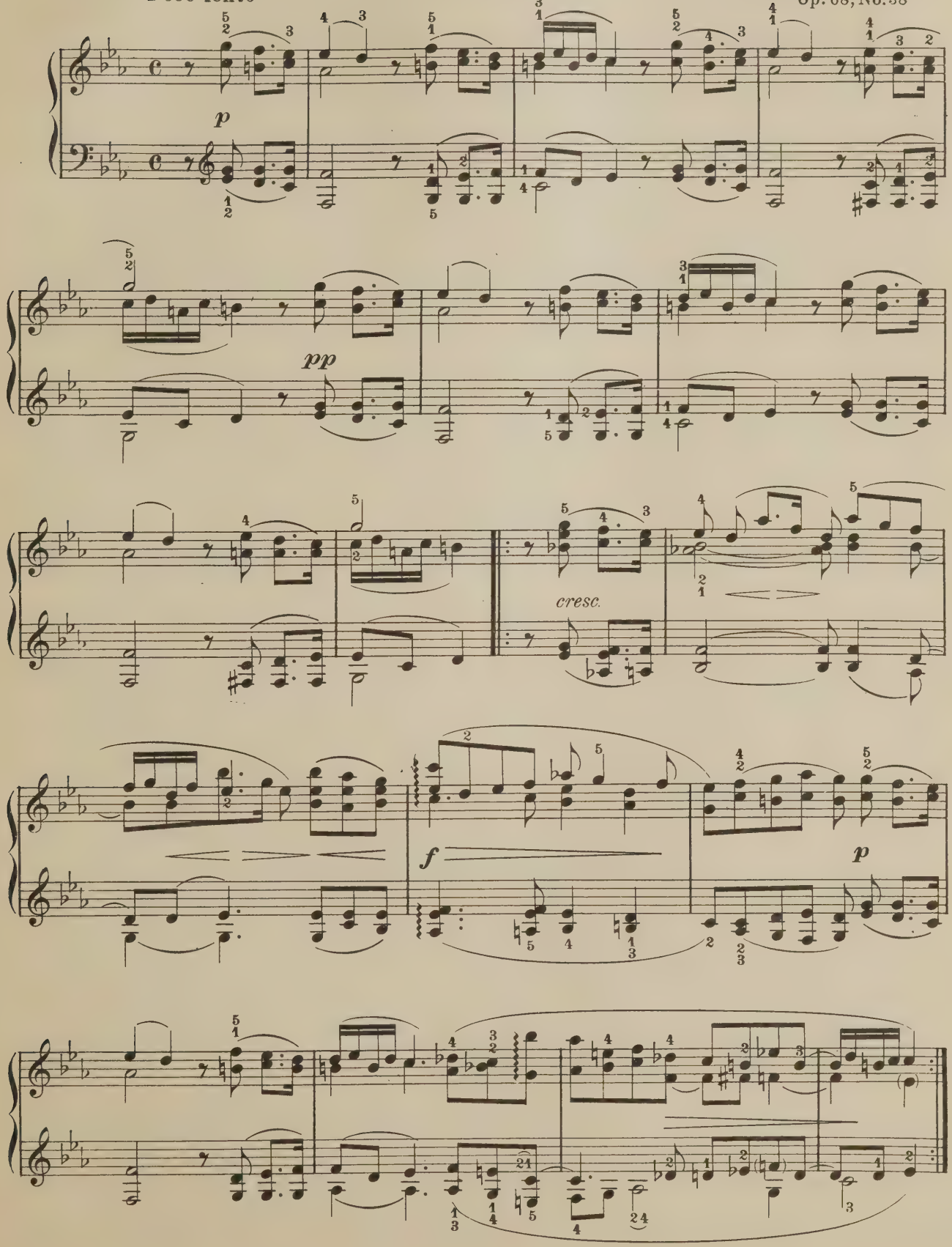

dim.
poco rit.
mp a tempo
f
dim.
mf
poco rit.
mf
a tempo
mp
p

WINTER TIME

(I)

ROBT. SCHUMANN
Op. 68, No. 38

Poco lento



changes. Such changes as are necessary are due to the presence of other notes to be played by the same hand. Finger changes often form the means by which the whole hand is shifted into another position, so that from this new position still other notes may be played. This use of finger changes is shown in the STUDY by *Mortson*. No change is required for the first three notes, but a substitution on the fourth note enables the hand to swing to a position from which the thumb can play the *A♭*. Unless the presence of other notes requires such changes, always play repeated notes with the same finger in slow and moderate tempos as this permits better technical and dynamic control.

CUMULATIVE REVIEW AND ELABORATION OF FUNDAMENTAL TECHNIC

First Assignment

SPECIAL TECHNIC: Practise the silent exchange of fingers on the scale in Double Thirds as in Example No. 1, using the following pairs of fingers:

R. H.	4	3	5	4	5	4	5	4	4	3
	2	1	3	2	2	1	1	2	1	2
L. H.	1	2	2	3	1	2	2	1	2	1
	3	4	4	5	4	5	4	5	3	4

ARPEGGIOS: Practise the four preparatory exercises for velocity *arpeggios*, Example No. 4, transposing each form into the Keys of *G*, *D* and *A*, as in Example No. 3.

CHORDS: Practise the Eight Kinds of Triads (3-v, Example No. (6 as *solid* chords; also as broken chords. The use of the Damper pedal is indicated in Example No. 2; make certain that it is depressed on *and* after *one*, and that it is released on *one* of the following measure. Transpose to the Keys of *D♭* and *D*.

SCALES: Play the *major* scales in Single Thirds, in seventeen-note lengths, in all twelve Keys.

REVIEW: Third Scale Variation (3-iv, C) transposing it to neighboring Keys.

Second Assignment

SPECIAL TECHNIC: Practise the second of the special Trill fingerings for Velocity (3-v, Example No. 4B), the metronome speed increasing gradually from 100 to 126 to a *quarter* note.

ARPEGGIOS: Play the Dominant Seventh *arpeggio* of the Key of *F♯*, through four octaves, as in Example No. 5.

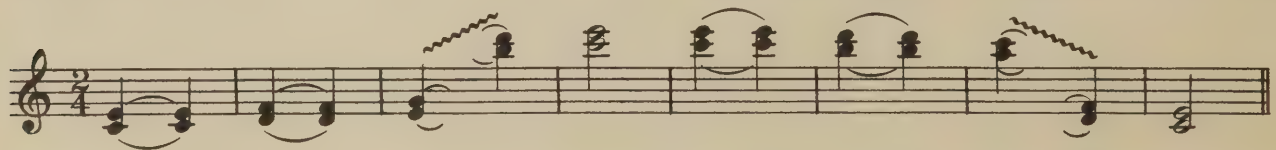
CHORDS: Continue the Eight Kinds of Triads as *broken* chords with the Damper pedal, as in Example No. 2, through the Keys of *E♭* and *E*.

SCALES: Review the *major* Scale in Single Sixths, in *C*, and continue with the Scale in *G*, as in Example No. 6.

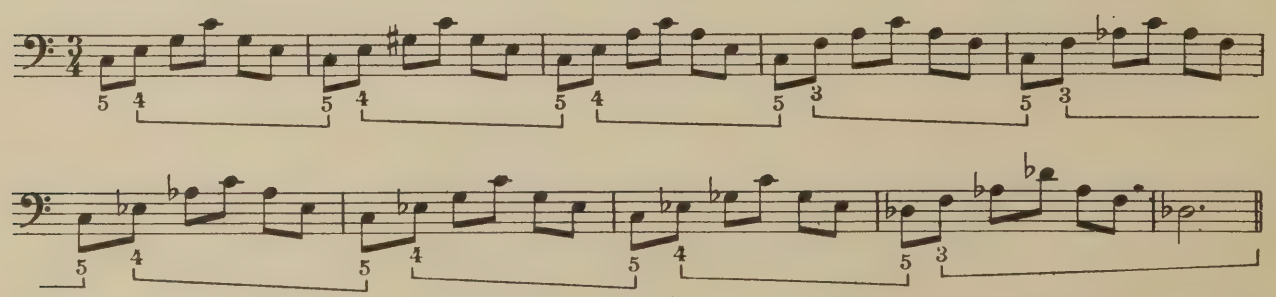
REVIEW: Play the Violin figures in *slurred* pairs, (3-i, Exercise No. 2, IV) in Octaves, the hands separately, then together, using the fingering:

1 1	1 1
4 5	4 5

Example No. 1 **Silent Exchange of Fingers on Thirds**

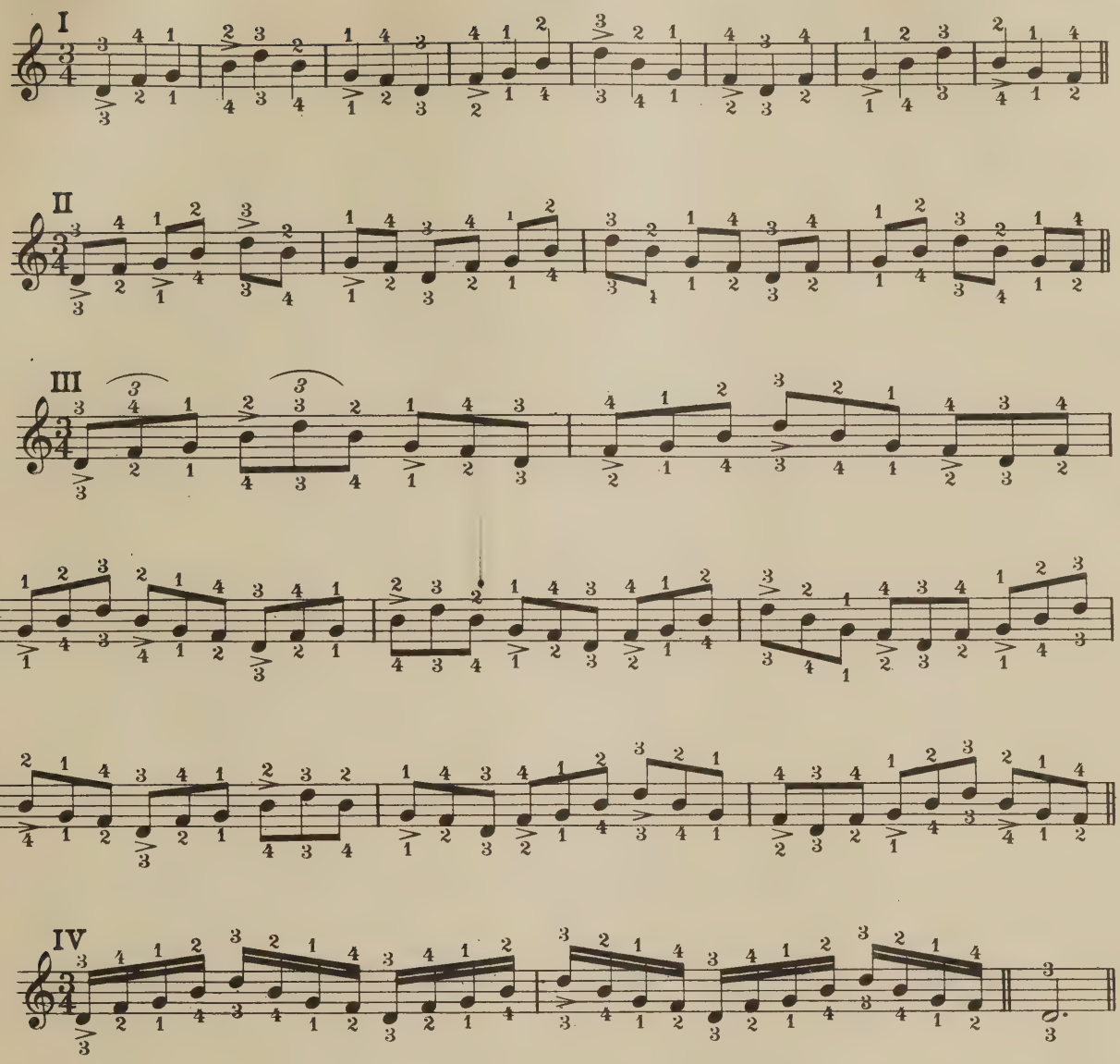


Example No. 2 **The Damper Pedal and the Eight Triads in *broken* form**



Example No. 3 **Transpositions of Preparatory Exercise**

Example No. 4 **Preparatory Exercise for Velocity *arpeggios***



Example No. 5 **Dominant Seventh *arpeggio:* Key of *F♯***

Example No. 6 ***Major* Scales in Single Sixths: Keys of *C* and *G***

VII

LEGGIERO PASSAGES

§ 1. Ornamental passages are generally played rapidly and lightly, or as indicated by the term Leggiero Velocity. The style of technic employed in such passages varies greatly, but one of the most common technical elements is the Trill. As a means for equalizing the touch and as an important factor in piano playing, the Trill is worthy of considerable attention. The only technical exercise that Mozart is known to have left was the Trill Study which has been extensively used in the previous grades, and it was only by accident that this clever device was given to the world. The Trill has been used extensively by all writers. Early in the history of instrumental music it was borrowed from the voice technic where it originated, and utilized in pieces for the harpsichord and clavichord to compensate for the lack of sustained tone power. With Bach it began to be used more as an independent embellishment, as can be seen in his important organ works. Beethoven made it the vehicle for emotional expression, as he did with every other element of technic, a notable example of which is found in the first page of the Sonata Appassionata.

Theoretically the Trill consists of the rapid alternation of an Harmonic tone with its changing-tone above or below. Usually the tone above is used. Most of the Trills in this chapter are written out in full, but they are frequently abbreviated by the sign *tr* placed over or under the principal note. When this sign is used the Trill begins on the note indicated unless the note is preceded by a Grace note on the changing-tone, such as often happens in Chopin's works. In this case the Trill starts on the changing-tone.

Study, *LeCouppey*

§ 2. The Trill in the inner voice should sound as an indistinct murmur against the melody in the right-hand part and the counter melody in the left. There will be a tendency to play it too heavily, due to the fact that it is played with the thumb and second finger, two of the strongest fingers in the hand. If the hand is large enough, sustain the *eighth* notes to the value of *quarter* notes. [§ 3]

Study, *Wilson*

§ 3. Here the Trills are employed solely as chord ornamentations; there is no well-defined melodic line. The finger changes are a technical feature of much value. Connect the Trills with each other evenly and play with a uniform touch, modified only slightly by the *crescendo* and *diminuendo* signs. [§ 5]

The material of this Study is intended to give opportunity for the development of strength in all of the fingers. Those passages which call for the exercising of the fourth and fifth fingers should receive special attention so as to secure the desired equality of touch between these and the stronger fingers. Each measure should first be practised a number of times by itself before the next measure is attempted. [§ 5]

Legato Study, *Lemoine*

§ 4. In this Study the Trills are accompanied by sustained tones in the same hand. Slow practice is essential at first. Guard carefully against any tendency to draw upon the arm muscles for power. Finger action only should be used. After the Study has been practised in its written form, give the outer fingers extra training by repeating the second half of each measure several times. [§ 6]

Joyous Moment, *Krause*

§ 5. For the first eight measures the Trill is in the form of an embellished Tonic organpoint. It is to be played very lightly and without using the Damper Pedal. The separated Double Thirds are to be played *staccato* and sharply accented. Be careful to see that the tied Thirds are not released too soon, as they should extend into the second compound division of the measure, but should not be *slurred* into the following *staccato* tone. [§ 4]

Hunting Song, *Gurlitt*

§ 6. The *leggiero* style does not necessarily imply that the passages as indicated are always played softly. A volume of tone that is louder than *piano* is quite consistent with the indication *leggiero*, which has to do with style rather than

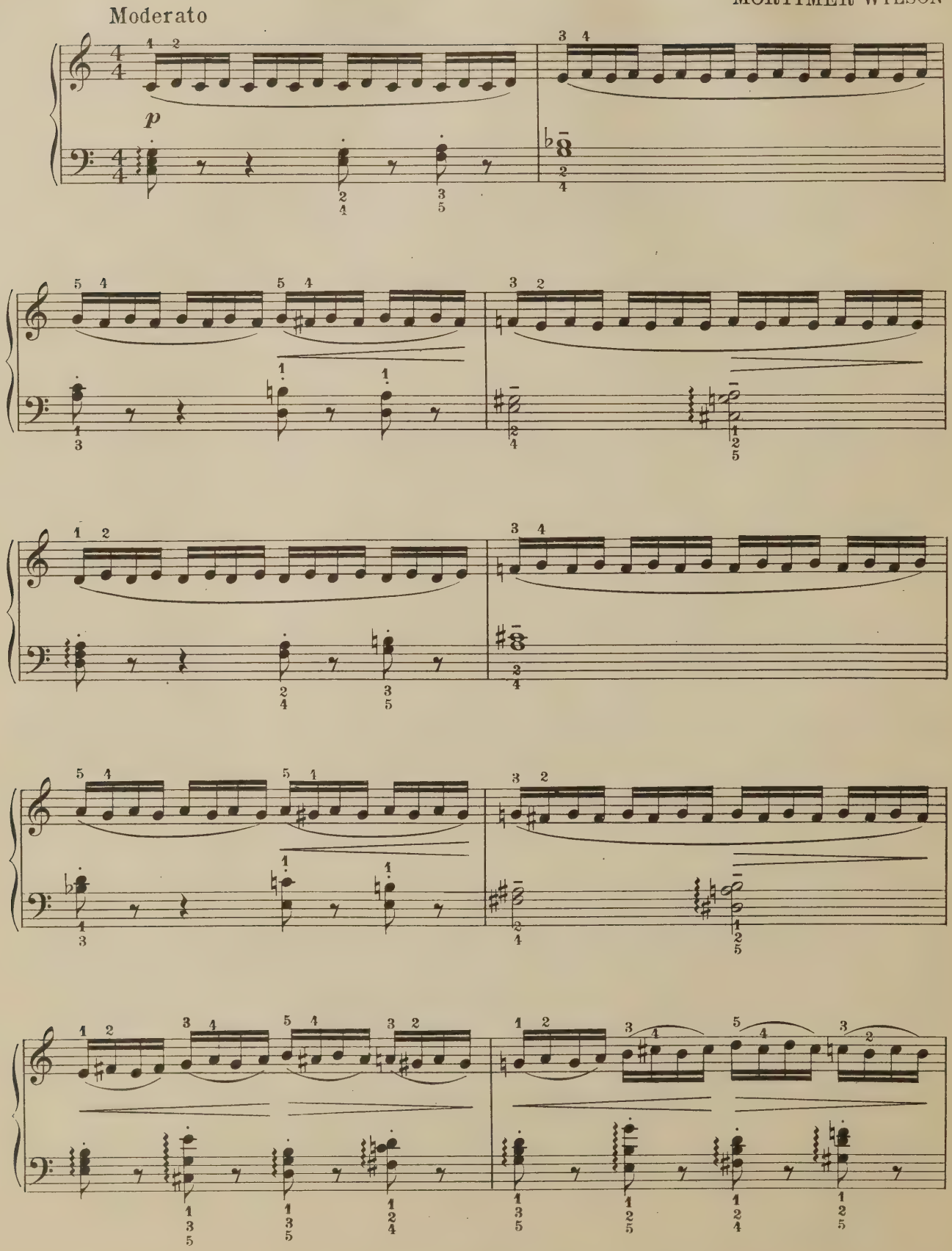
STUDY

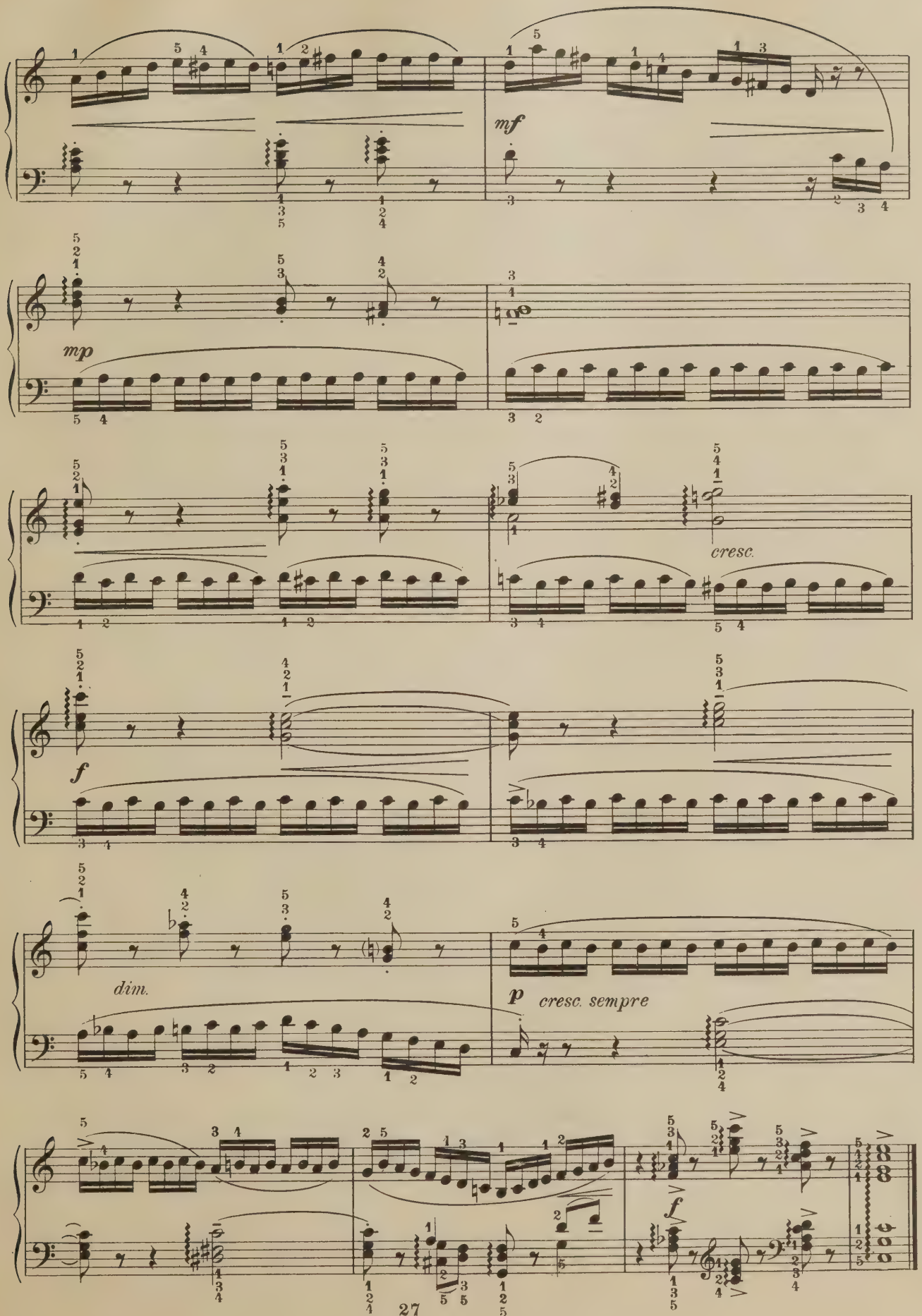
Allegro moderato (♩=126)

LE COUPPEY, Op. 20, Nº 4

STUDY

MORTIMER WILSON




mf
mp
cresc.
f
dim.
p
cresc. sempre
f

LEGATO STUDY

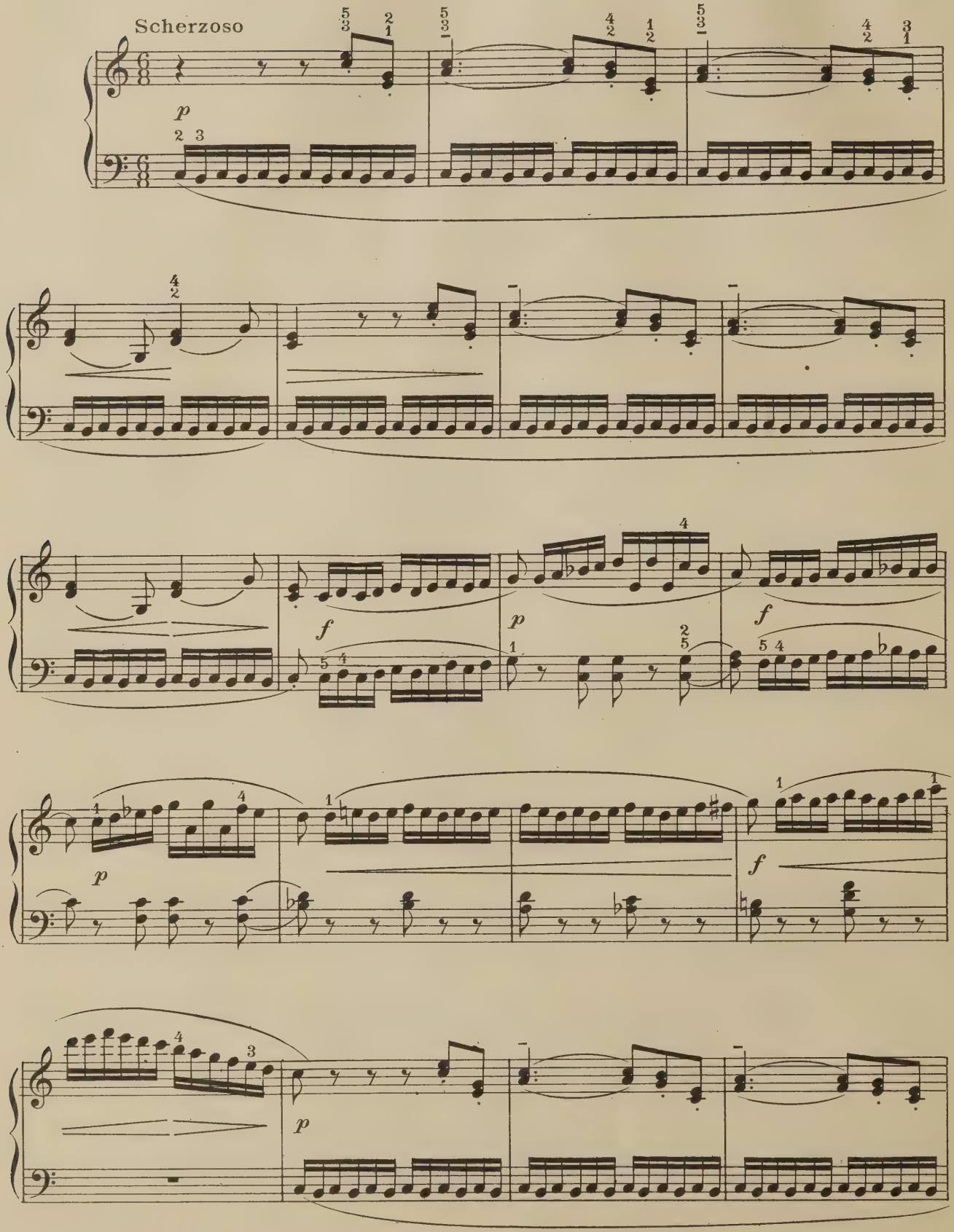
Moderato

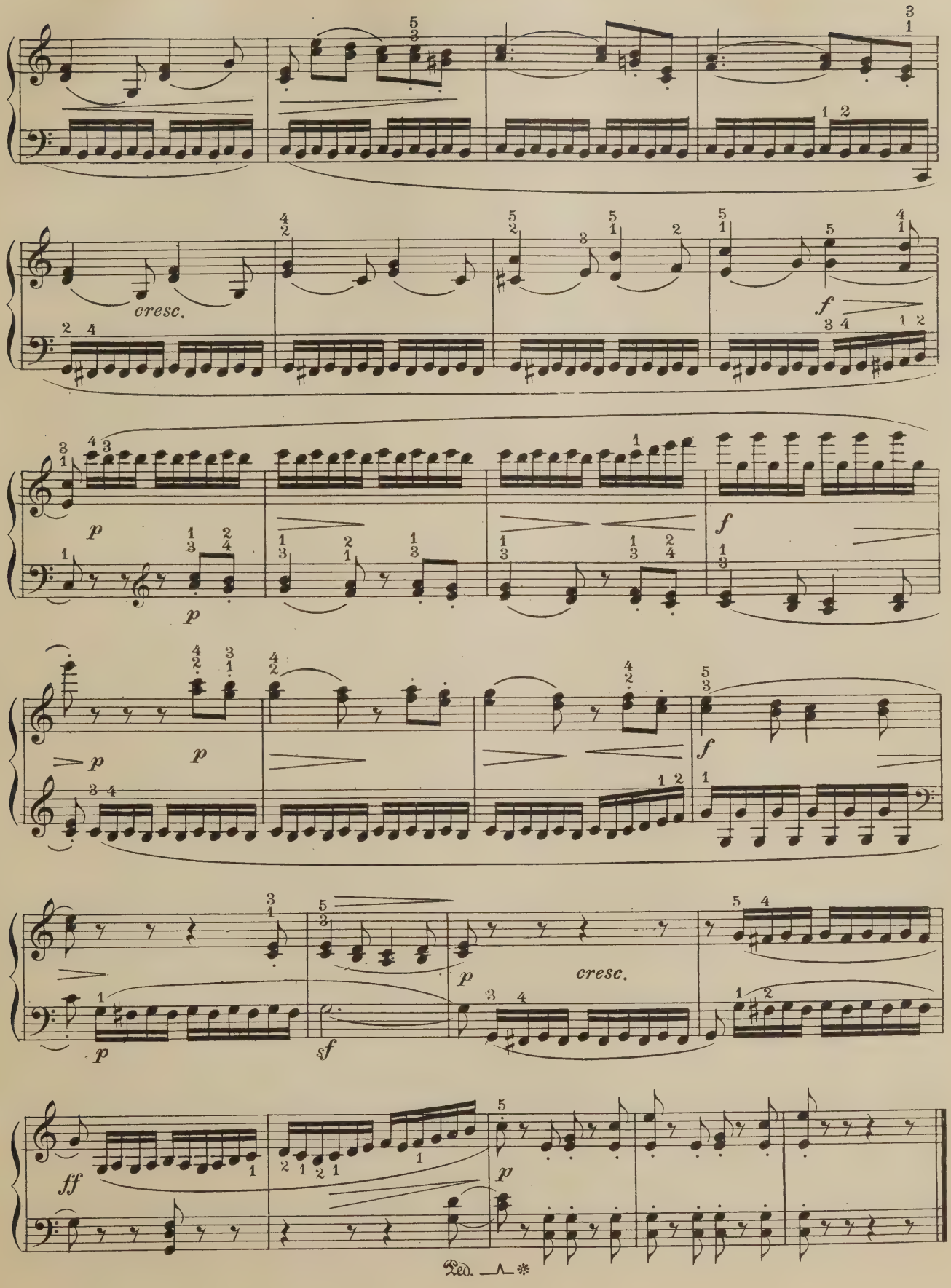
LEMOINE

p
p

JOYOUS MOMENT

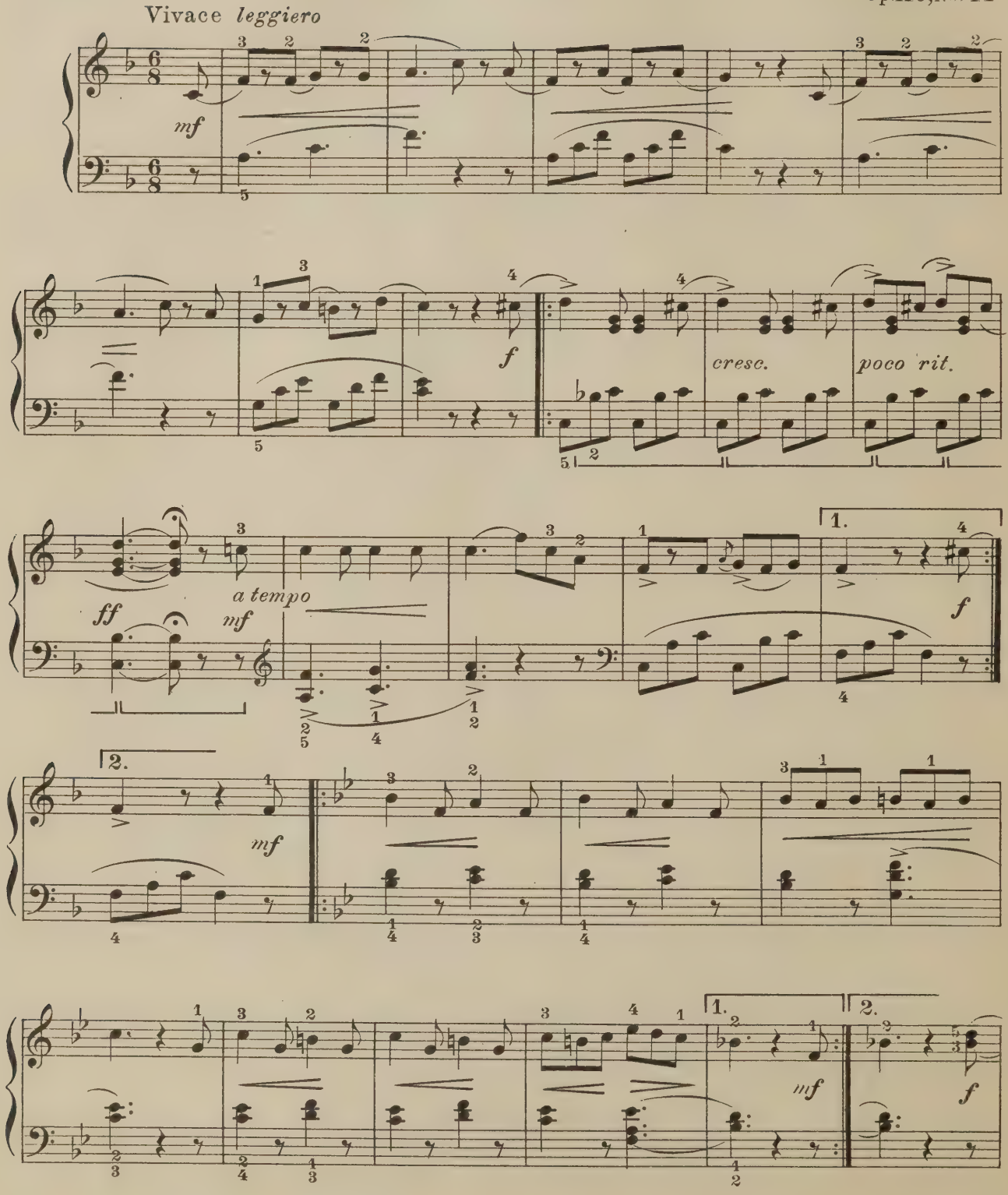
KRAUSE Op. 2, Nº 7.

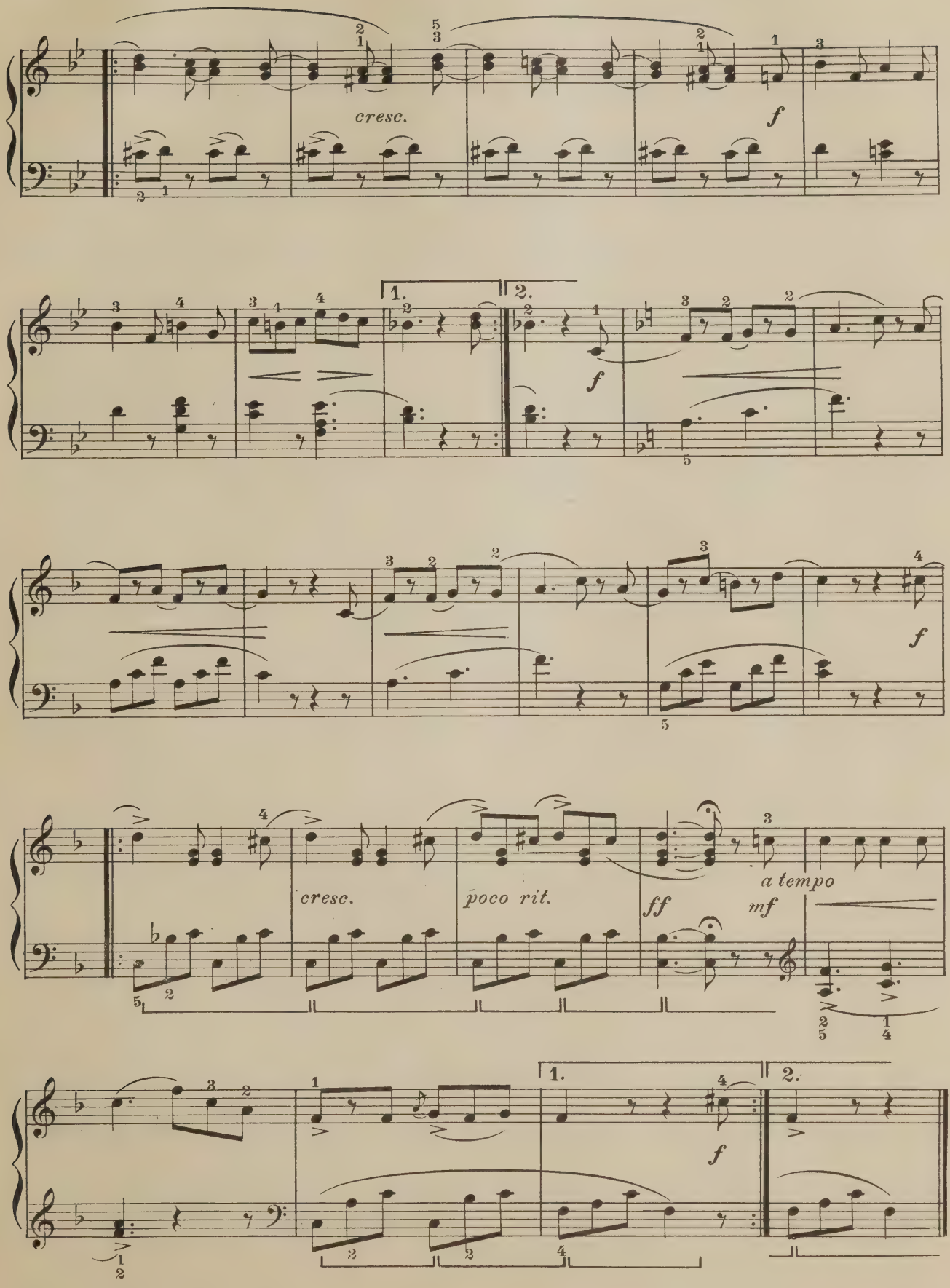



cresc.
f
p
p
f
p
p
f
p
cresc.
sf
ff
p
Ped.

HUNTING SONG

C. GURLITT
Op. 140, No. 14

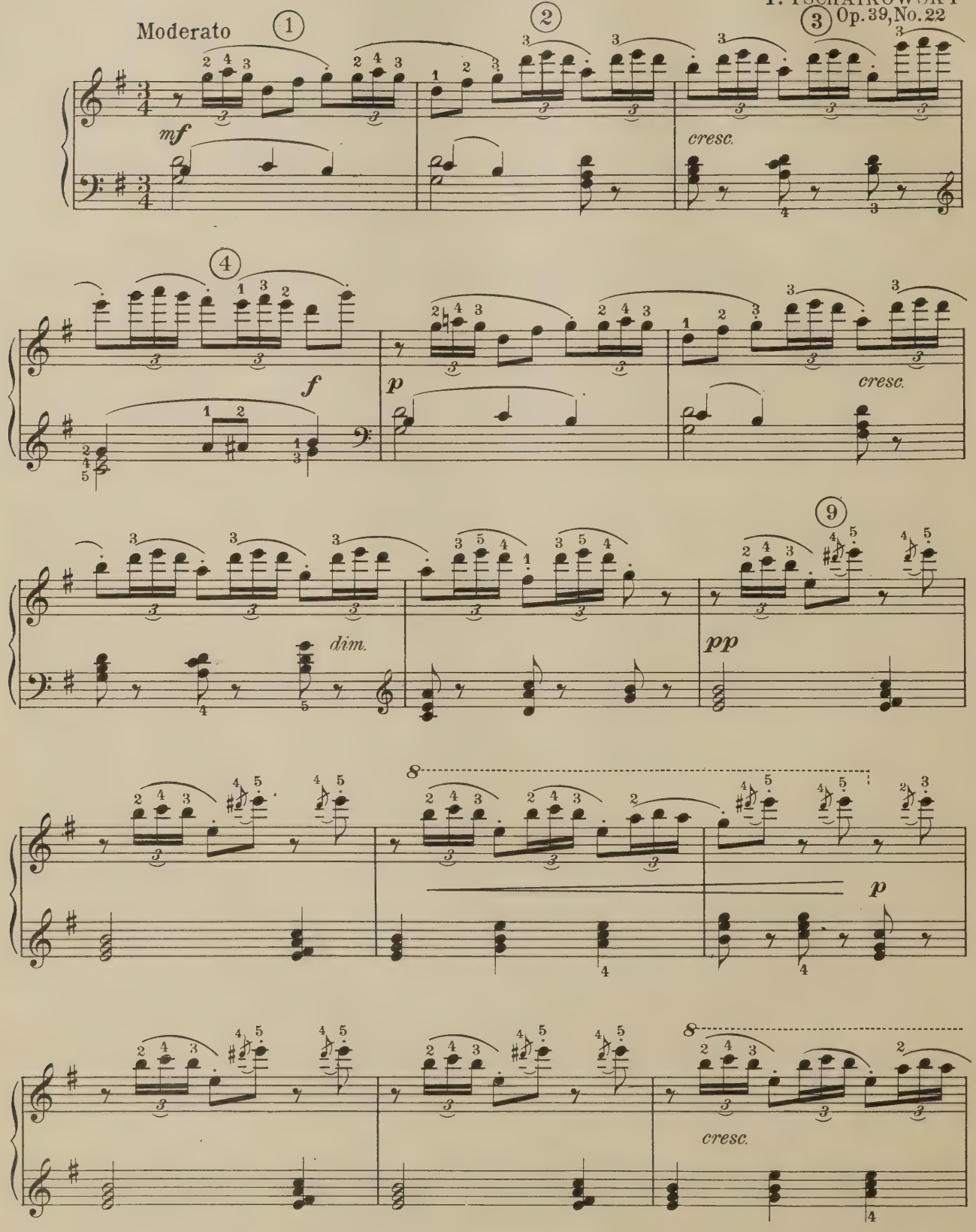


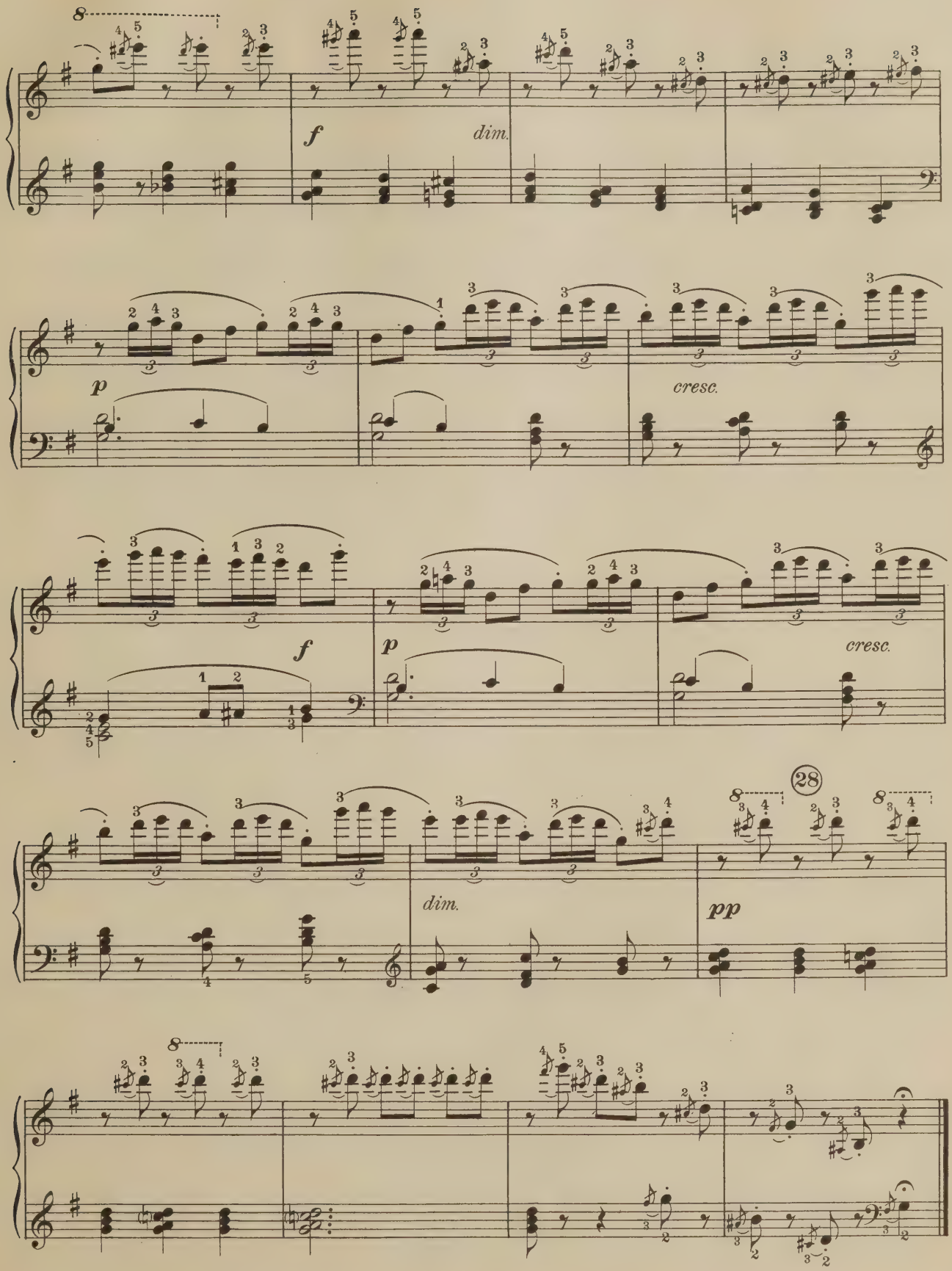

cresc.
f
1.
2.
f
f
cresc.
poco rit.
ff
mf
a tempo
1.
2.
f

SONG OF THE LARK

(G MAJOR)

P. TSCHAIKOWSKY
Op. 39, No. 22

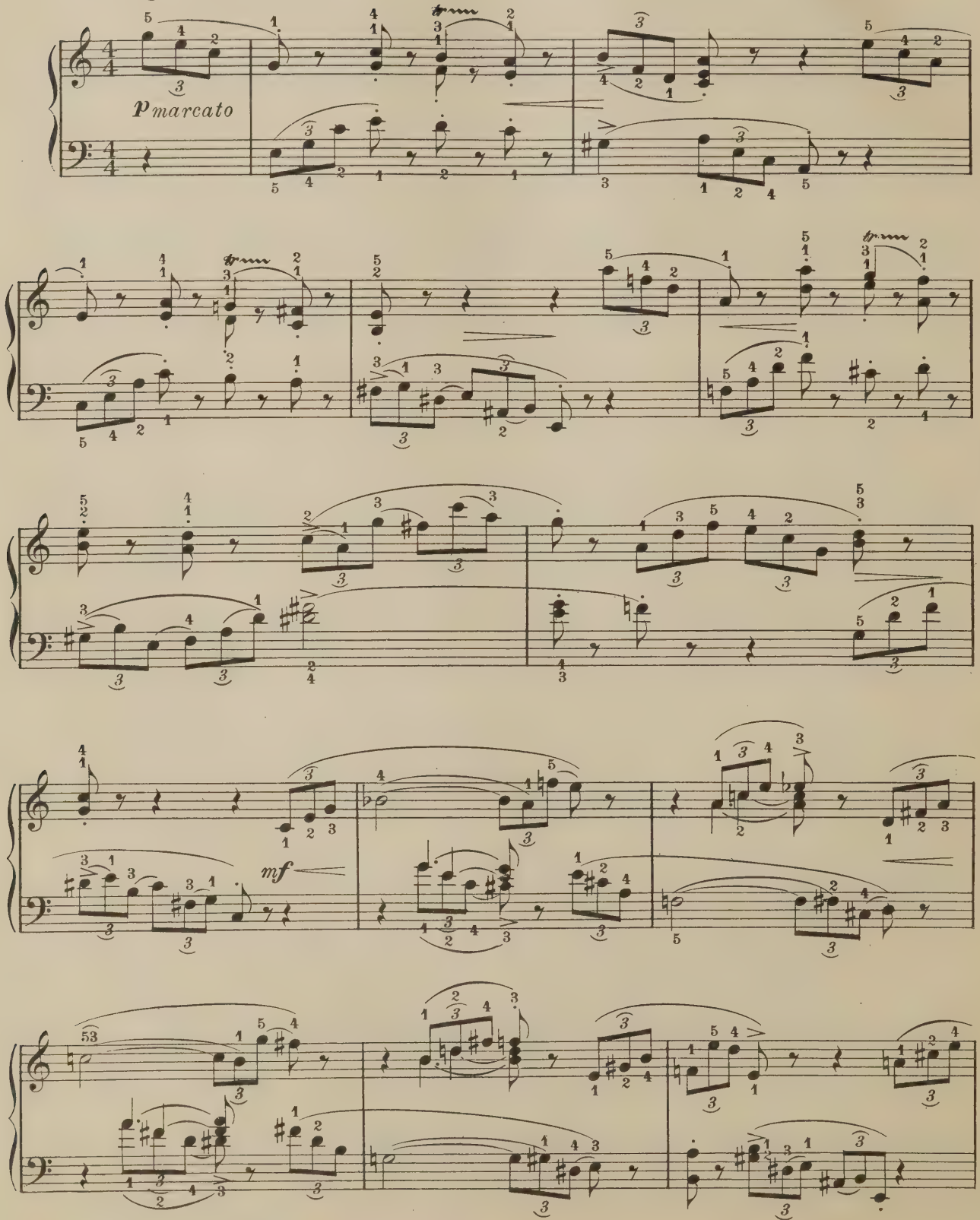


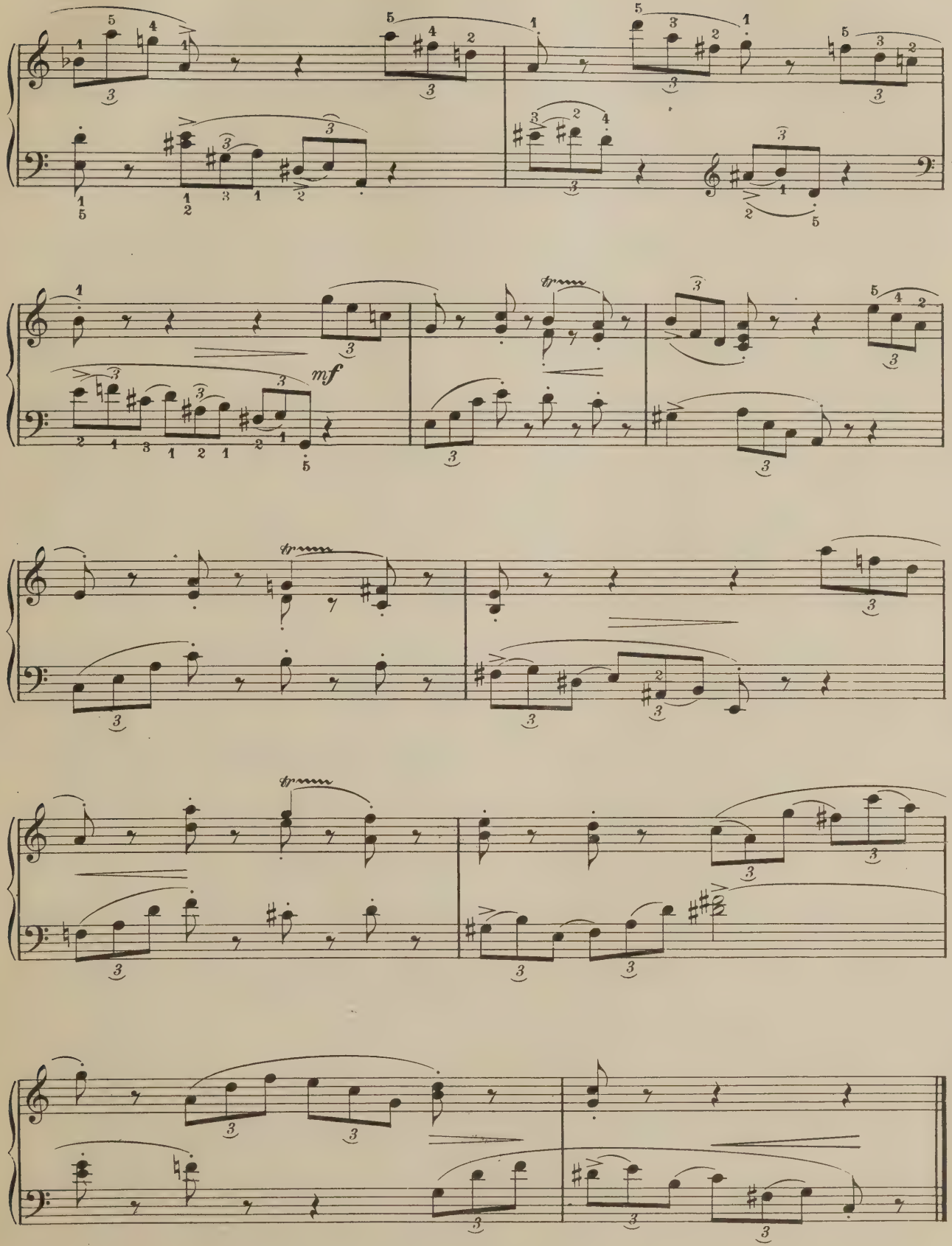

f
dim.
p
cresc.
f
p
cresc.
28
dim.
pp

DIVERTISSEMENT

MORTIMER WILSON
Op. 43, No.2

Allegro moderato




mf

dynamics. Mendelssohn once wrote *forte ma leggiero*, "loud but lightly." This HUNTING SONG calls for a style that might be described as one of light brilliancy. Strict attention to the *rests* and to the pedal indications will assist in achieving the desired interpretation.

Song of the Lark, *Tschaikowsky*

§ 7. The *sixteenth* note Triplet figures in this piece are inverted mordents rather than Trills, and they have a melodic significance. They are played much slower than the Trills in the preceding pieces and studies. [§ 7]

Divertissement, *Wilson*

§ 8. The *leggiero* style is represented by the whole structure of this piece, and the few Trills present are only short embellishments of single melodic tones here and there. It cannot be said that either the right or the left hand is the more important. The parts for both hands are so closely knit that in the general effect this distinction is lost. [§ 8]

CUMULATIVE REVIEW AND ELABORATION OF FUNDAMENTAL TECHNIC

First Assignment

SPECIAL TECHNIC: Practise the three models for the *major* Double Third Trills (3-iv, Example No. 2) and apply each model to the complete *major* series in the table of Seventy-two Double Third Trills (3-iv, Example No. 1), using the following fingers:

R. H. $\begin{matrix}3 & 4\\ 1 & 2\end{matrix}$ L. H. $\begin{matrix}2 & 1\\ 4 & 3\end{matrix}$

ARPEGGIOS: Practise the four preparatory exercises for Velocity *arpeggios* (3-vi, Example No. 4), transposed to the Keys of *E* and *F major*, as in Example No. 5.

CHORDS: Continue the Eight Kinds of Triads as *broken* chords with the Damper pedal (3-vi, Example No. 2) through the Keys of *F* and *F♯;* also as *solid* chords (3-v, Example No. 6).

SCALES: Practise the *major* scales in Single Sixths in the Keys of *D* and *A*, in nine-note lengths as in Example No. 8.

REVIEW: Practise the four model Dominant Seventh *arpeggios* beginning on the black keys, as in Example No. 6; then play the complete sequence through all twelve keys, in the Falling Quint Succession, as in Example No. 7. Practise the exercise for reiterated tones with held keys (3-i, Exercise No. 2, Nos. II, III and IV).

Second Assignment

SPECIAL TECHNIC: Practise the first twelve of the Sixty Quadruplets with one Double note, as given in music motation in Example No. 1, applying to each the Rhythmic Pattern in Triplets, Example No. 2. Then continue through the remainder of the complete table of sixty fingerings, Example No. 3.

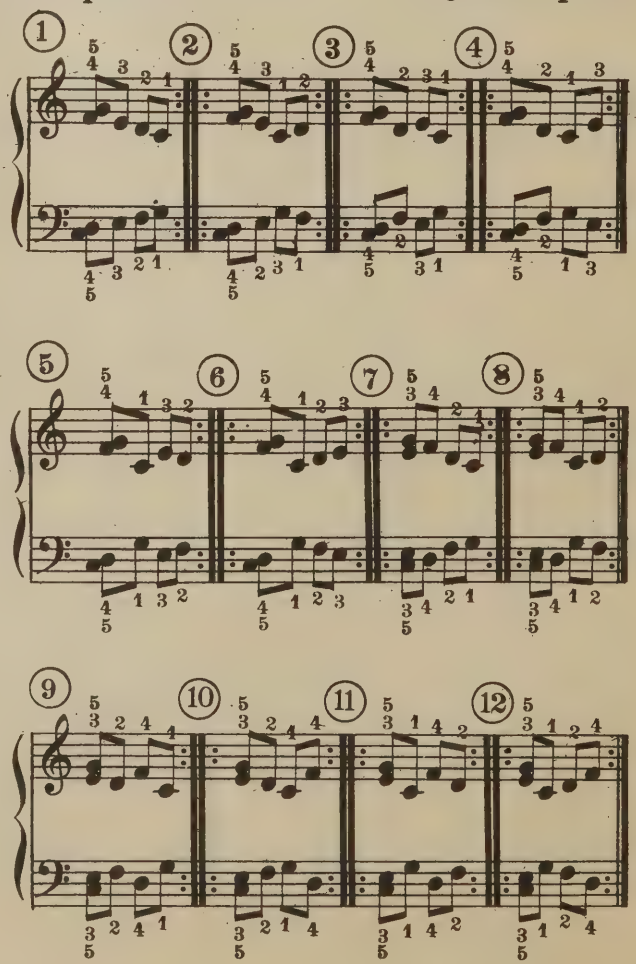
ARPEGGIOS: Practise the Triad Undulations, applying the Model (3-iv, Example No. 4) to the Keys of *D*, *B* and *F-sharp major*, Example No. 4.

CHORDS: Continue the eight kinds of Triads as *broken* chords with the Damper pedal (3-vi, Example No. 2) through the Keys of *G* and *A♭;* also as *solid* chords (3-v, Example No. 6).

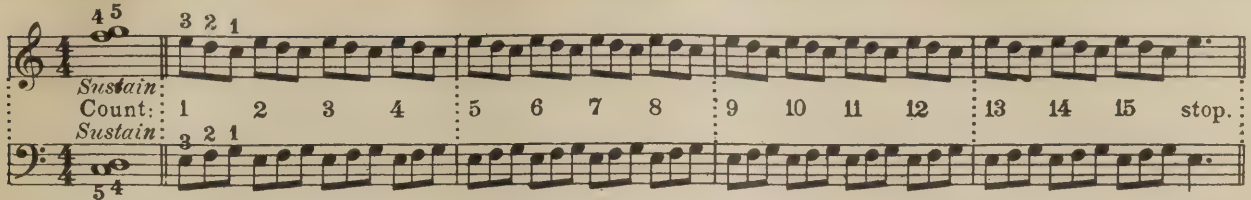
SCALES: Practise the five-fold scale, Example No. 11, and as soon as it is familiar increase the metronome speed from 76 to 88 to a *quarter* note.

REVIEW: Extend the *major* scales in Single Thirds, through three octaves in Triplet rhythm. The major scales in Single Thirds, fingered in nine-note lengths for all twelve Keys, are given in full in Example No. 9. The extended rhythmic model in Triplets is shown in Example No. 10.

Example No. 1 **Quadruplets**



Example No. 2 **Triplet Model for a Quadruplet with One Double Note**

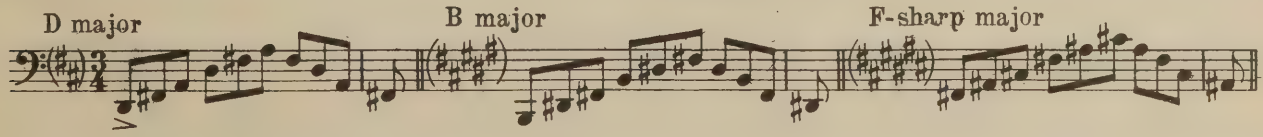


Example No. 3 **Sixty Quadruplets with One Double Note**

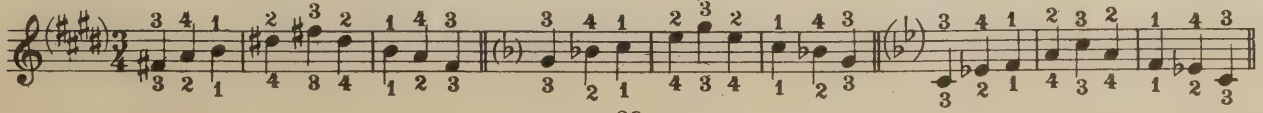
1. $\frac{5}{4}$ 321	2. $\frac{5}{4}$ 312	3. $\frac{5}{4}$ 231
4. $\frac{5}{4}$ 213	5. $\frac{5}{4}$ 132	6. $\frac{5}{4}$ 123
7. $\frac{5}{3}$ 421	8. $\frac{5}{3}$ 412	9. $\frac{5}{3}$ 241
10. $\frac{5}{3}$ 214	11. $\frac{5}{3}$ 142	12. $\frac{5}{3}$ 124
13. $\frac{5}{2}$ 431	14. $\frac{5}{2}$ 413	15. $\frac{5}{2}$ 341
16. $\frac{5}{2}$ 314	17. $\frac{5}{2}$ 143	18. $\frac{5}{2}$ 134
19. $\frac{5}{1}$ 432	20. $\frac{5}{1}$ 423	21. $\frac{5}{1}$ 342
22. $\frac{5}{1}$ 324	23. $\frac{5}{1}$ 432	24. $\frac{5}{1}$ 423
25. $\frac{4}{3}$ 521	26. $\frac{4}{3}$ 512	27. $\frac{4}{3}$ 251
28. $\frac{4}{3}$ 215	29. $\frac{4}{3}$ 152	30. $\frac{4}{3}$ 125

31. $\frac{4}{2}$ 531	32. $\frac{4}{2}$ 513	33. $\frac{4}{2}$ 351
34. $\frac{4}{2}$ 315	35. $\frac{4}{2}$ 153	36. $\frac{4}{2}$ 135
37. $\frac{4}{1}$ 532	38. $\frac{4}{1}$ 523	39. $\frac{4}{1}$ 352
40. $\frac{4}{1}$ 325	41. $\frac{4}{1}$ 253	42. $\frac{4}{1}$ 235
43. $\frac{3}{2}$ 541	44. $\frac{3}{2}$ 514	45. $\frac{3}{2}$ 451
46. $\frac{3}{2}$ 415	47. $\frac{3}{2}$ 154	48. $\frac{3}{2}$ 145
49. $\frac{3}{1}$ 542	50. $\frac{3}{1}$ 524	51. $\frac{3}{1}$ 452
52. $\frac{3}{1}$ 425	53. $\frac{3}{1}$ 254	54. $\frac{3}{1}$ 245
55. $\frac{2}{1}$ 543	56. $\frac{2}{1}$ 534	57. $\frac{2}{1}$ 453
58. $\frac{2}{1}$ 435	59. $\frac{2}{1}$ 354	60. $\frac{2}{1}$ 345

Example No. 4 **Transpositions of the Triad Undulations**

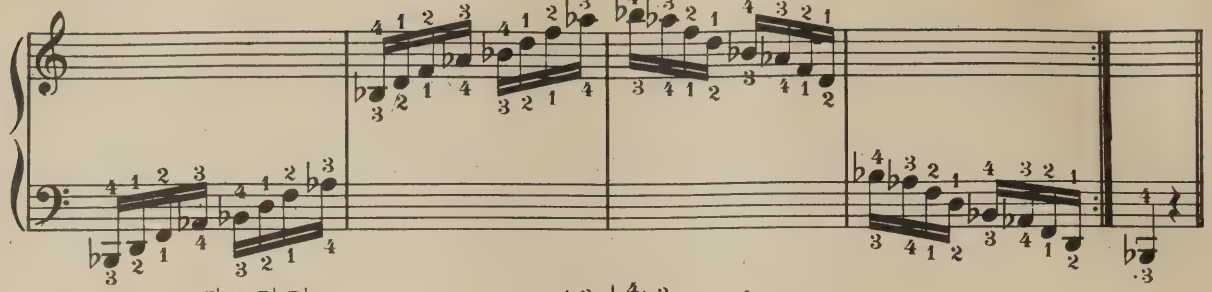


Example No. 5 **Transpositions of the Preparatory Exercises for Velocity *arpeggios***

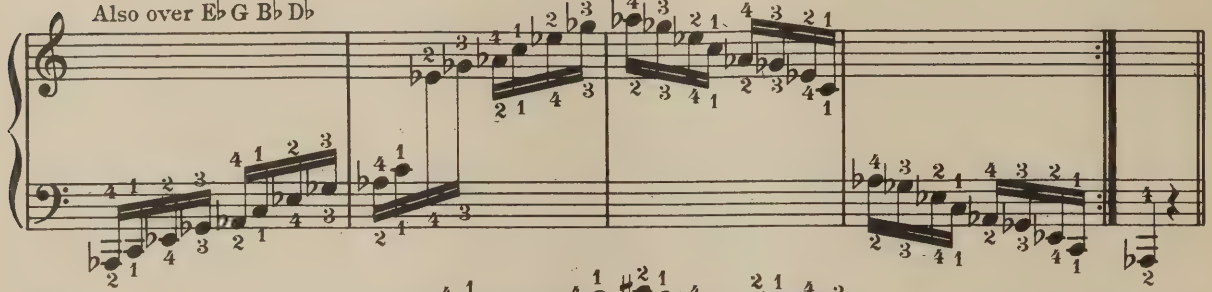


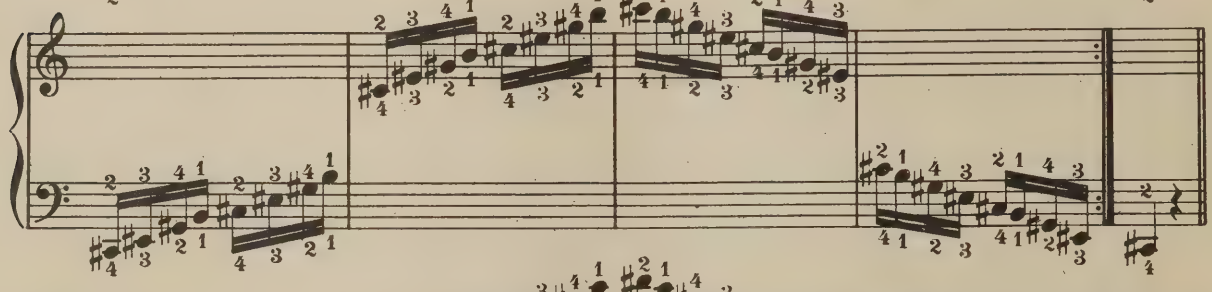
Example No. 6 **Dominant Seventh *arpeggios*, beginning on black keys**

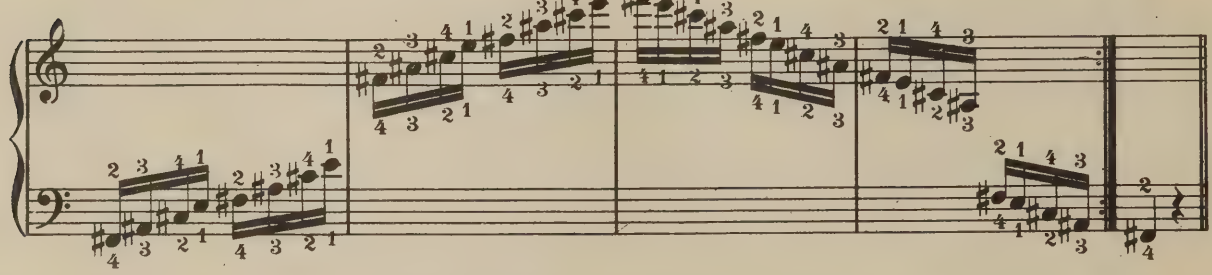
[Sup. Tech. III, Nos. 20 to 23]



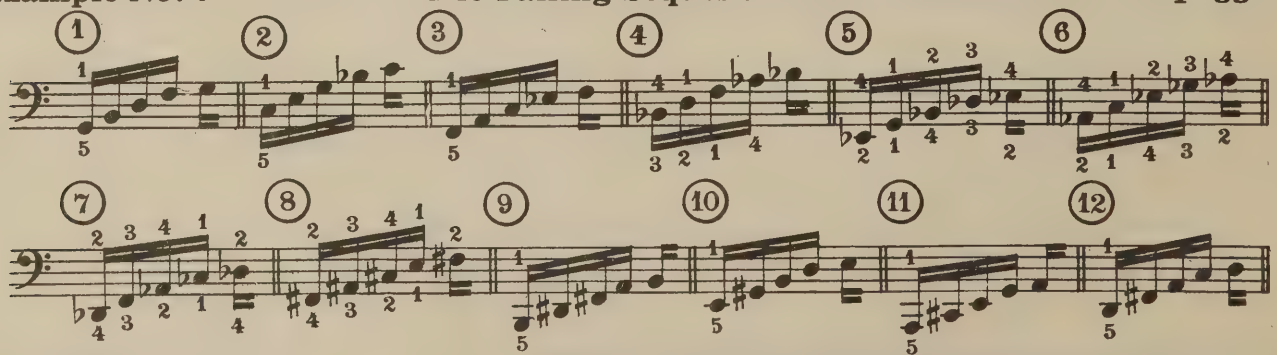
Also over E♭ G B♭ D♭





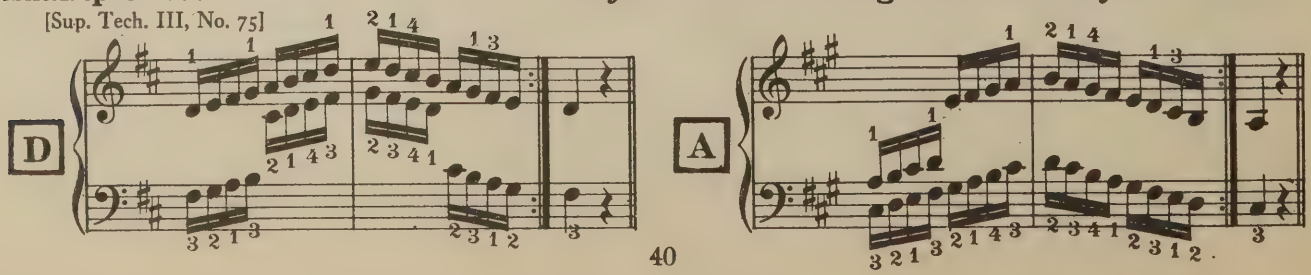


Example No. 7 **The Falling Sequence of Dominant Seventh *arpeggios***



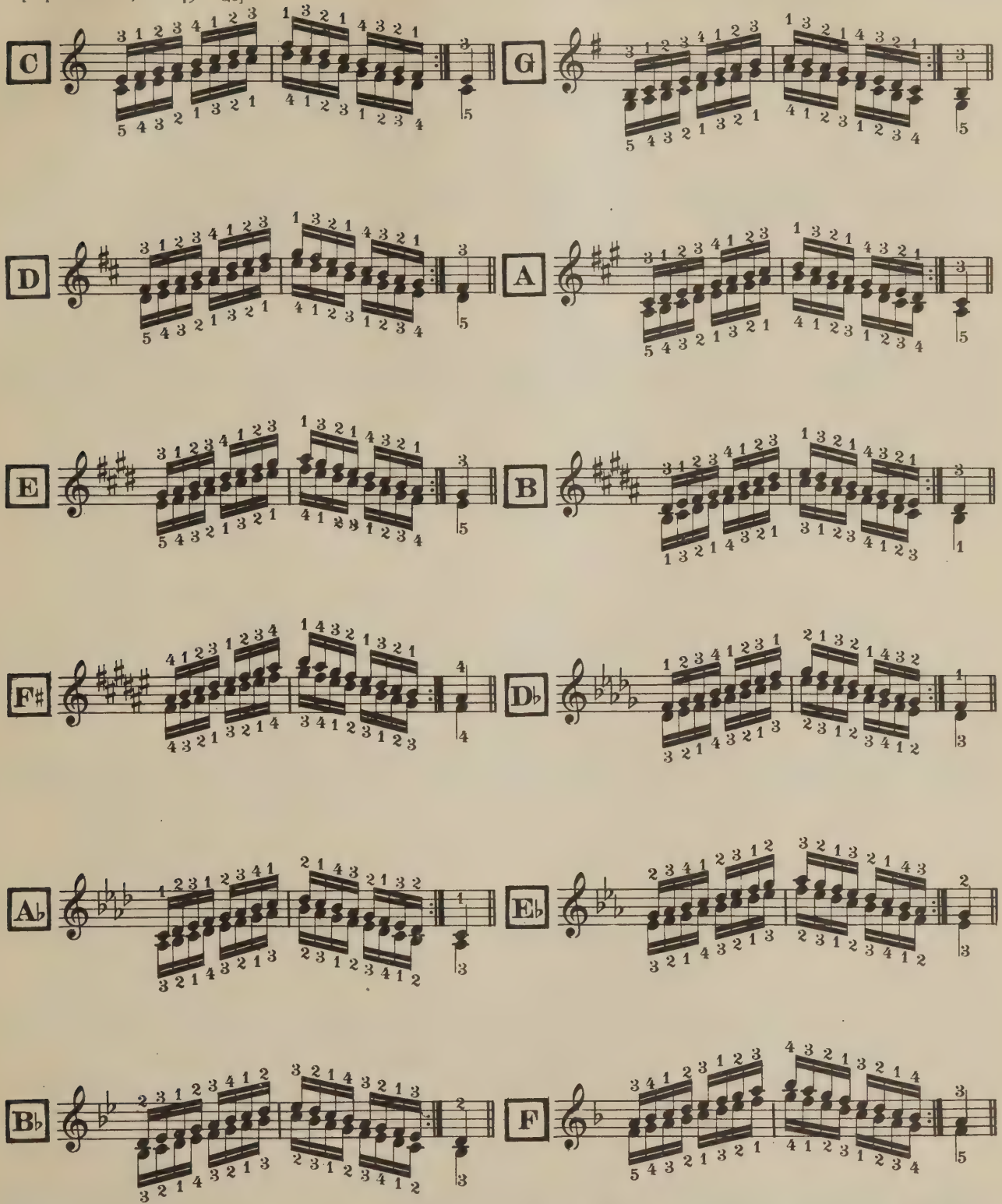
Example No. 8 ***Major* Scales in Single Sixths: Keys of *D* and *A***

[Sup. Tech. III, No. 75]

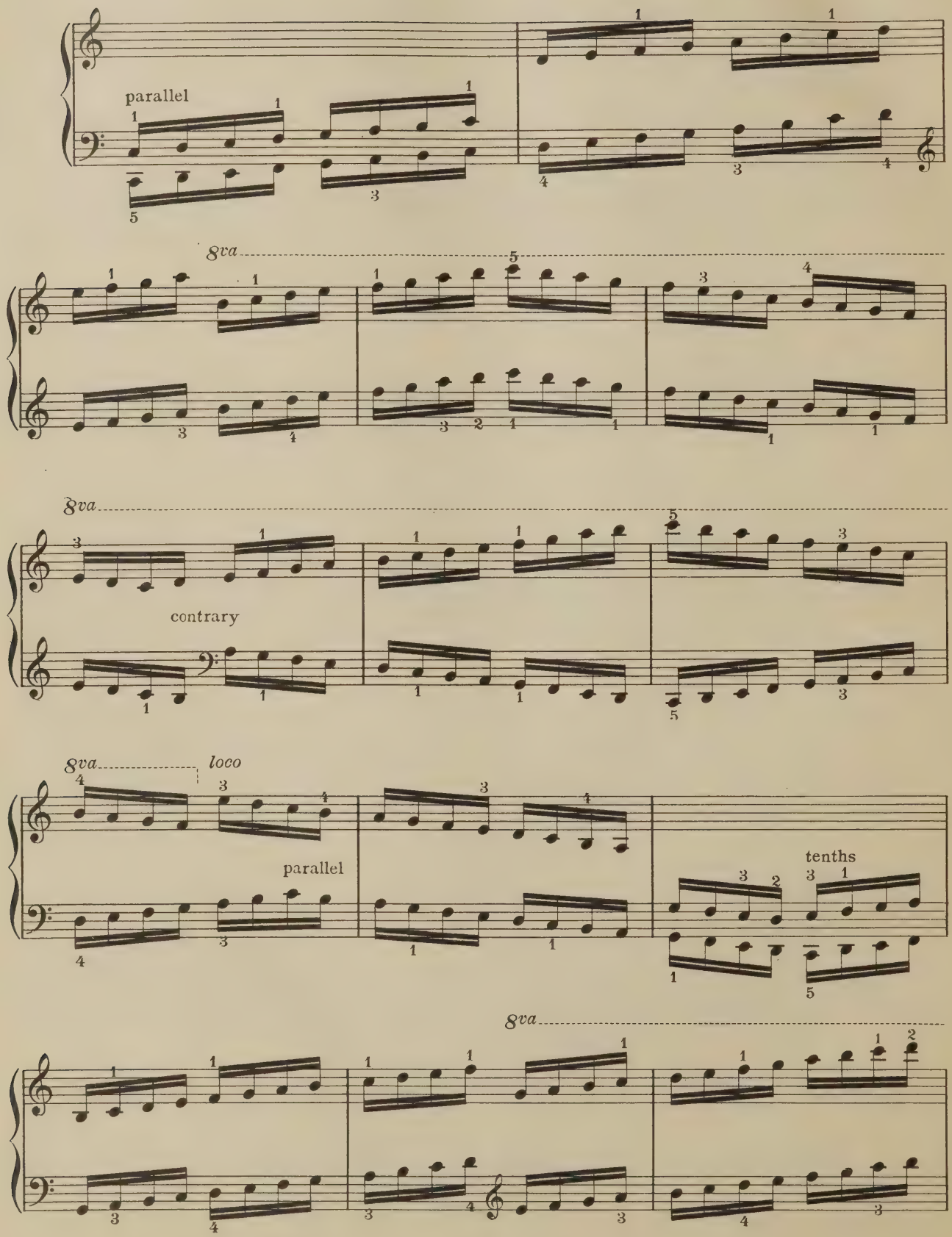


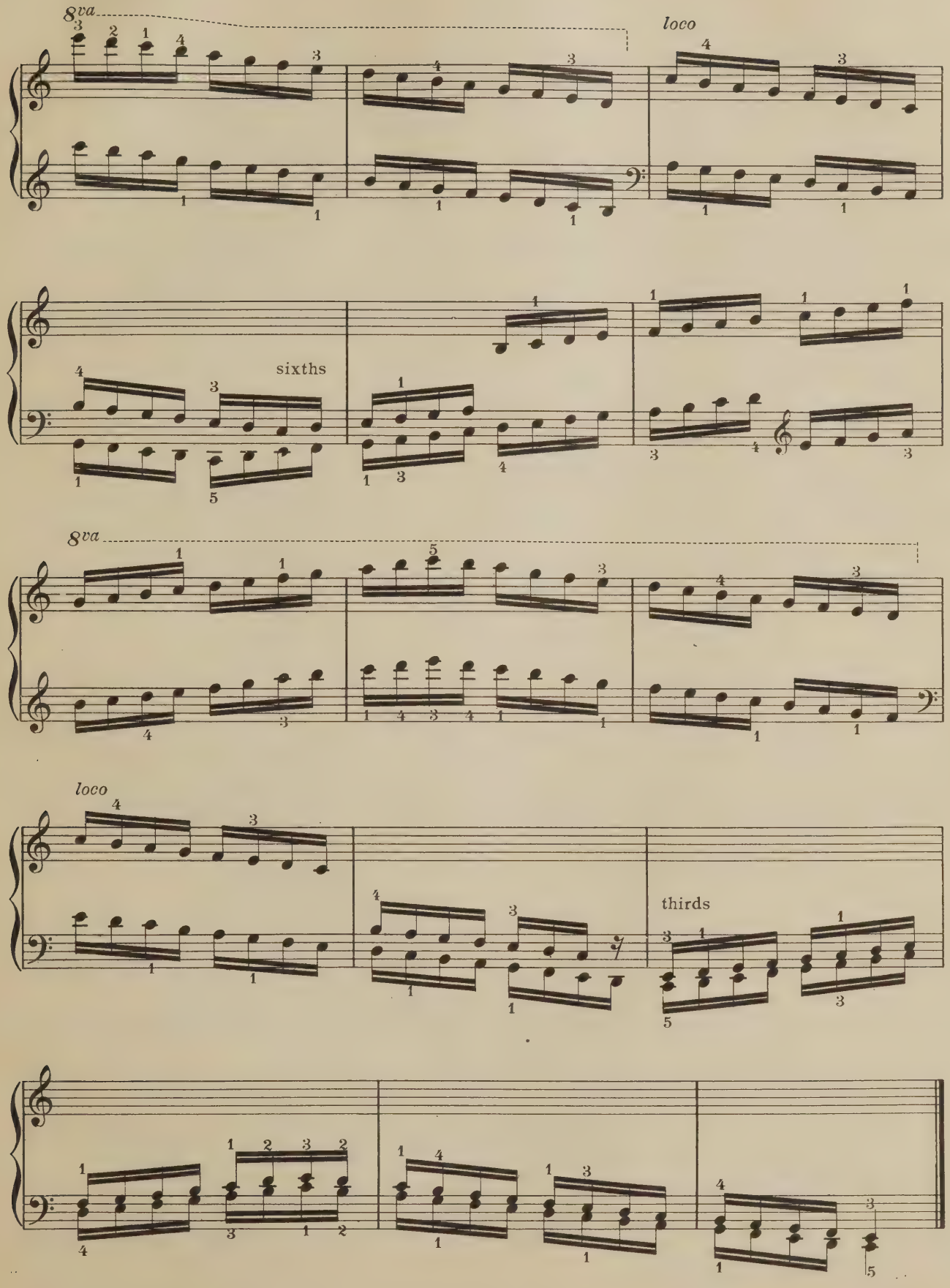
Example No. 9 — ***Major*** **Scales in Single Thirds, in nine-note lengths**

[Sup. Tech. III, Nos. 49 to 60]



Example No. 10 — **Three-Octave Model for Scales in Single Thirds**


parallel
8va
8va
contrary
8va
loco
parallel
tenths
8va


8va
loco
sixths
8va
loco
thirds

VIII

ARPEGGIOS AND ALTERNATING FIGURES

§ 1. Passages in which a technical figure is divided between the hands seem to have first been used extensively by Bach. In the interval between Bach and Beethoven they were almost forgotten, but they again made their appearance in the more mature work of Beethoven and they have been used by composers for the piano ever since.

Nearly all of the technical elements found in piano playing lend themselves to the principle of hand alternation. Scales, *arpeggios*, chords, Octaves, Double notes, and even the Trill are readily played in this way, but the most common application is to *arpeggios* divided between the hands. It frequently happens that such an *arpeggio* can also be played entirely by one hand, which raises the question as to why it should be written for two hands. Added brilliancy of performance is insured by releasing the hand which begins the next passage, so that it can be prepared in advance; also because the dividing of the passage between the hands enables each to gain a momentary period of rest between the times it is engaged in playing. This rest may be for only a fraction of a second, but it is enough to allow the muscles to relax, so that the hand resumes its work in a supple and rested condition. The general result is an increase of power or speed, or both, that imparts to the passage a character it could not possess otherwise. In some cases an alternation of the hand is made necessary because of a keyboard "lay-out" that is too complicated for one hand to accomplish alone.

Study, *Duvernoy* [PAGE 45]

§ 2. Except for one instance, found in the last measure but one, there are no hand alternations in this STUDY. Play the *arpeggios* smoothly and evenly, with a *crescendo* to the top of the hill and a *descrescendo* to the bottom.

Study, *Czerny* [PAGE 46]

§ 3. Practise the first eight measures in the form of *solid* chords, one chord to a *quarter* note. Except in the seventh measure where the spacing is rather wide, this is easily possible. As soon as one hand has played its chord, lift it and pass it over the hand that is playing the following chord, to a position from which it can play its own next chord without hesitation. Then practise the Study as written, making certain that no break is evident between the groups. The two variants shown in Illustration No. 1 are useful for acquiring evenness and certainty.

Scherzino, *Karganoff* [PAGE 49]

§ 4. In this Scherzino is a different application of the principle of alternation. In the two preceding studies the passages were so divided that the parts for the two hands were of equal importance. Here greater prominence must be given to the right-hand part, which contains the melody. The effect produced by the single tones played by the left hand in the middle of each measure is rhythmic, not melodic, and care must be taken not to over-accentuate them.

Illustration No. 1 **Variants for the Czerny Study**

[Illustration No. 2]

STUDY

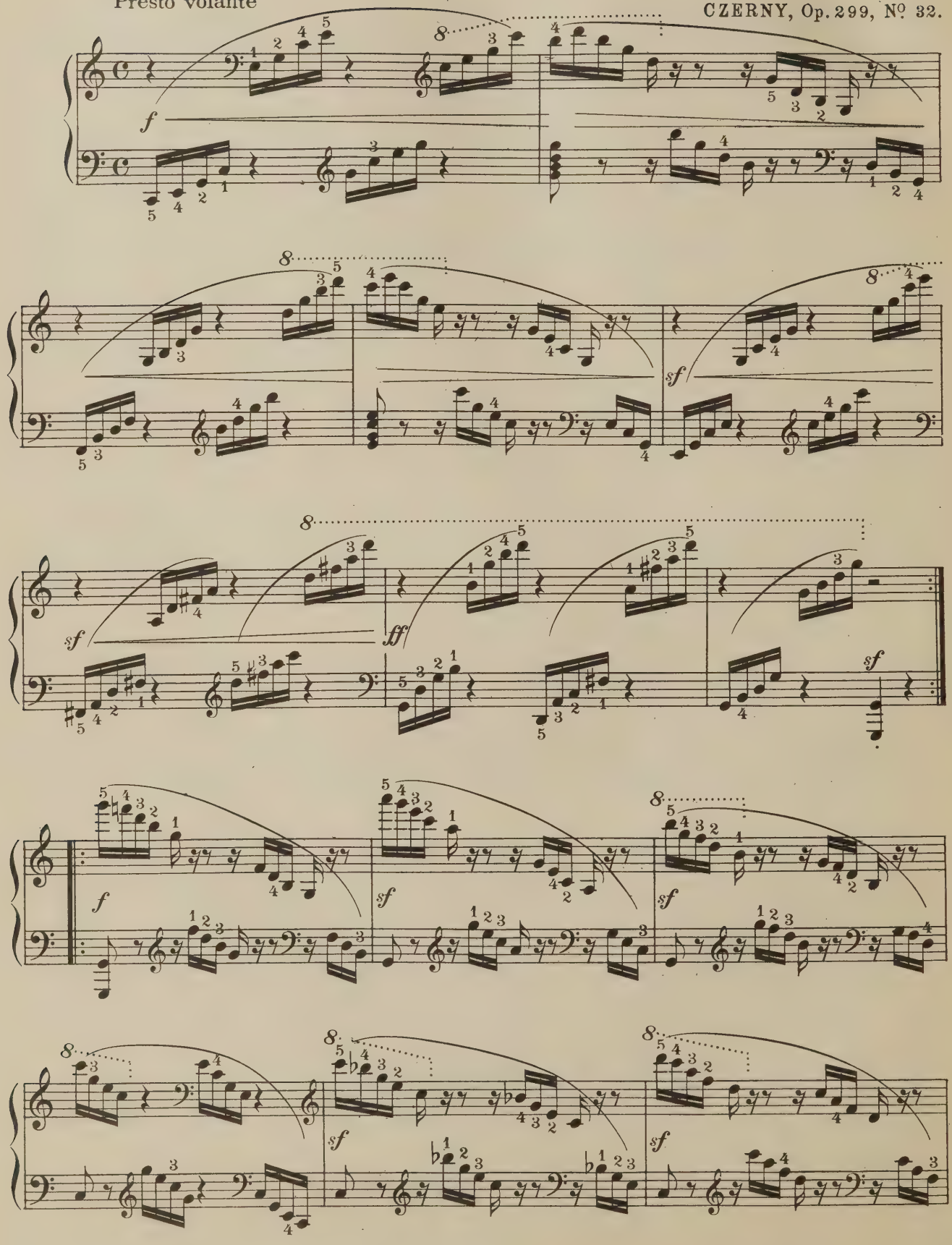
Allegro moderato (♩=126)

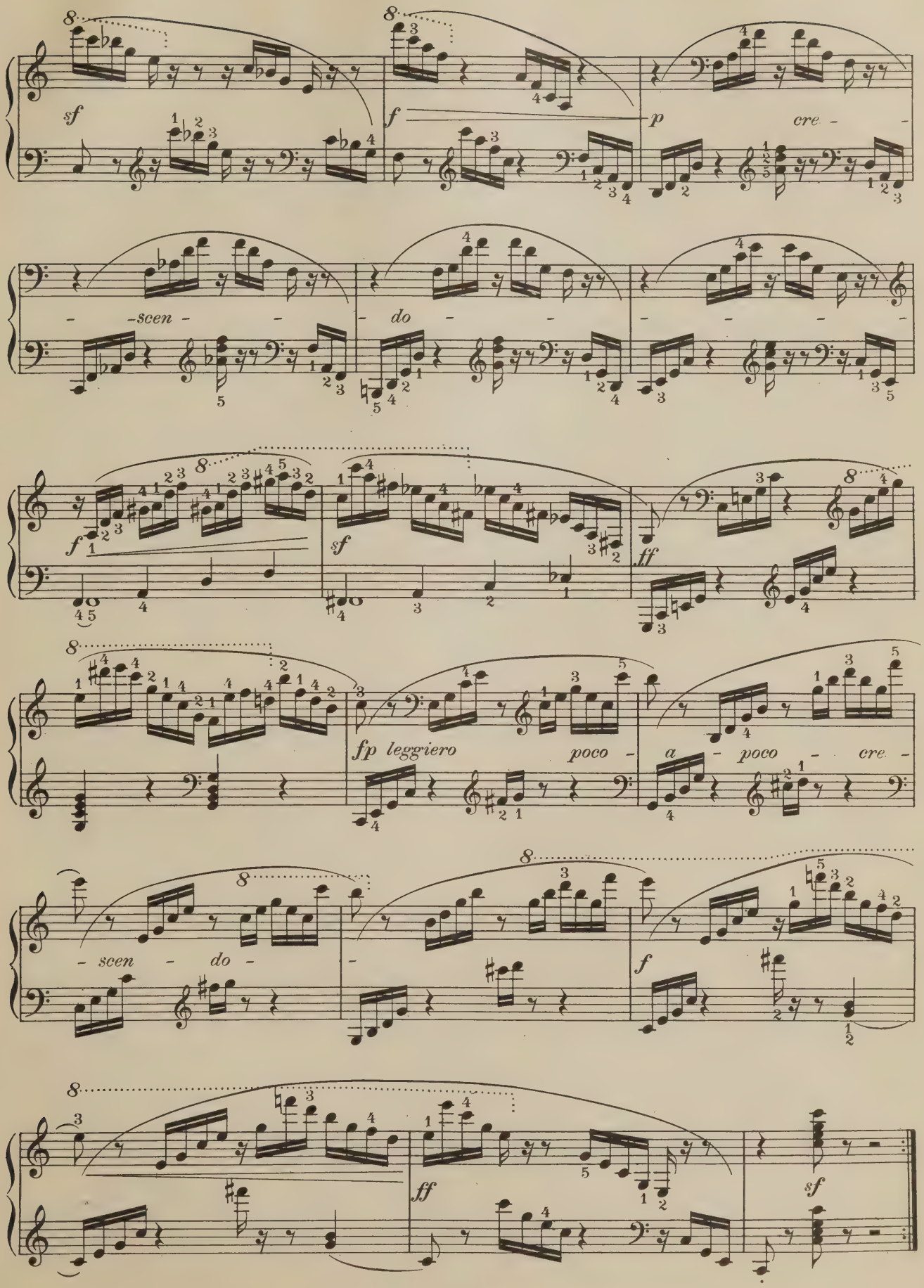
DUVERNOY, Op. 120, Nº 8

STUDY

Presto volante

CZERNY, Op. 299, Nº 32.




sf
f
p
cre -
- scen -
- do -
f
sf
ff
fp leggiero
poco -
a - poco -
cre -
- scen - do -
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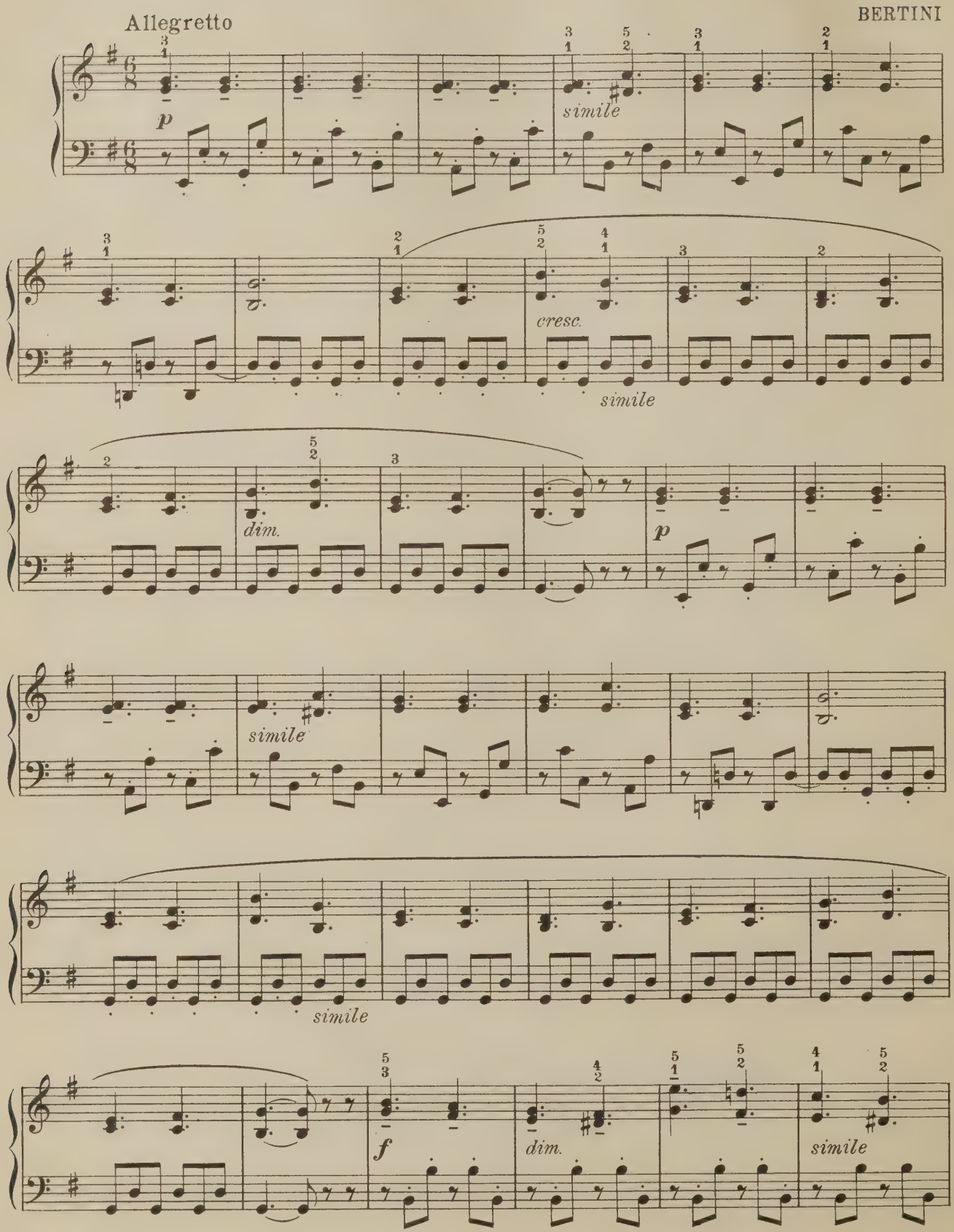
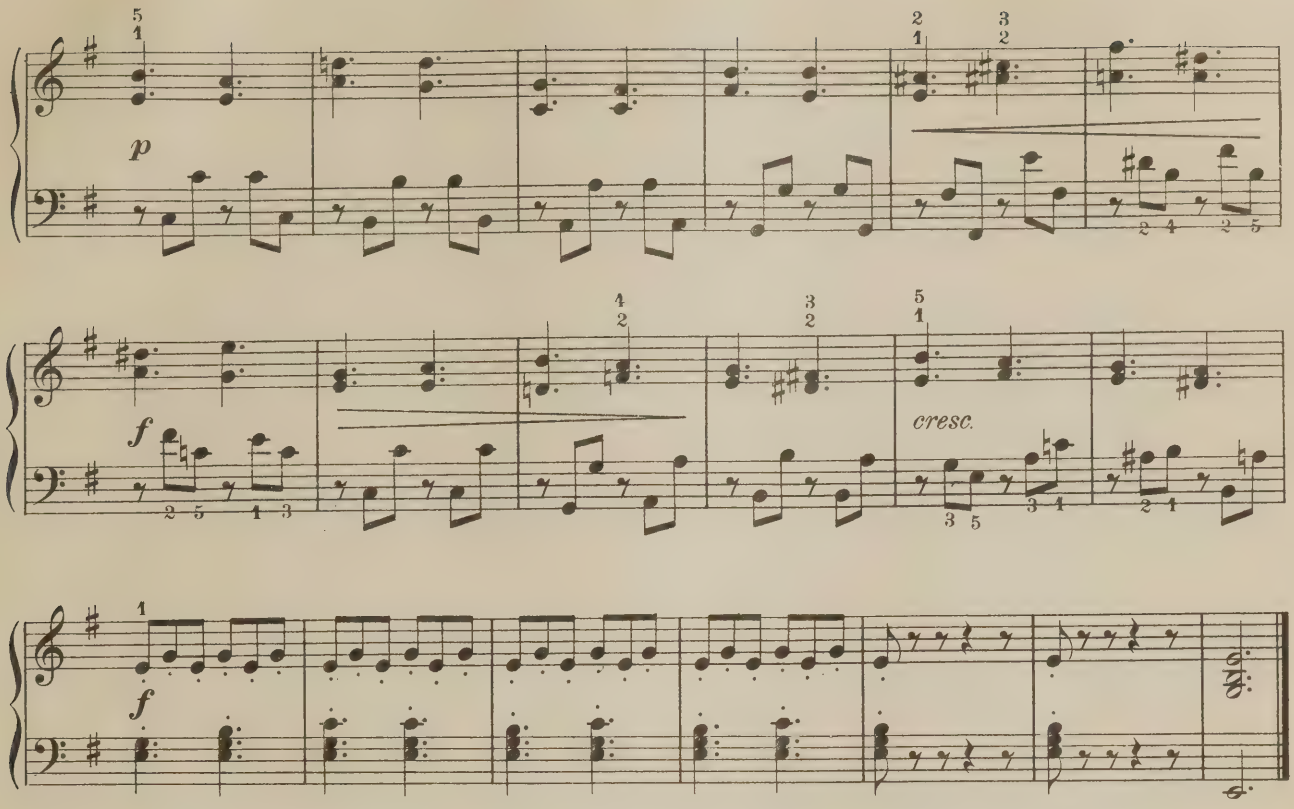
ff
sf

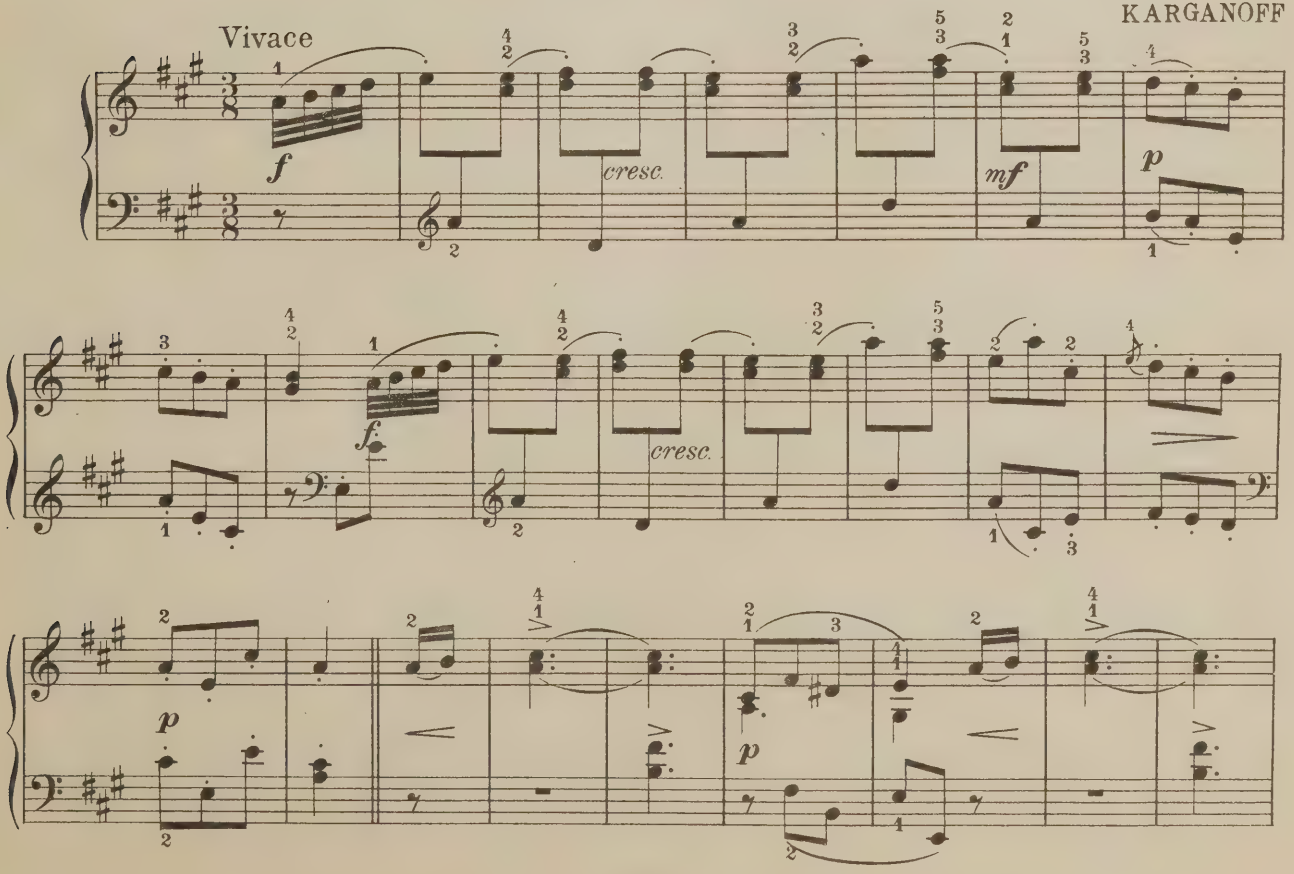
STUDY

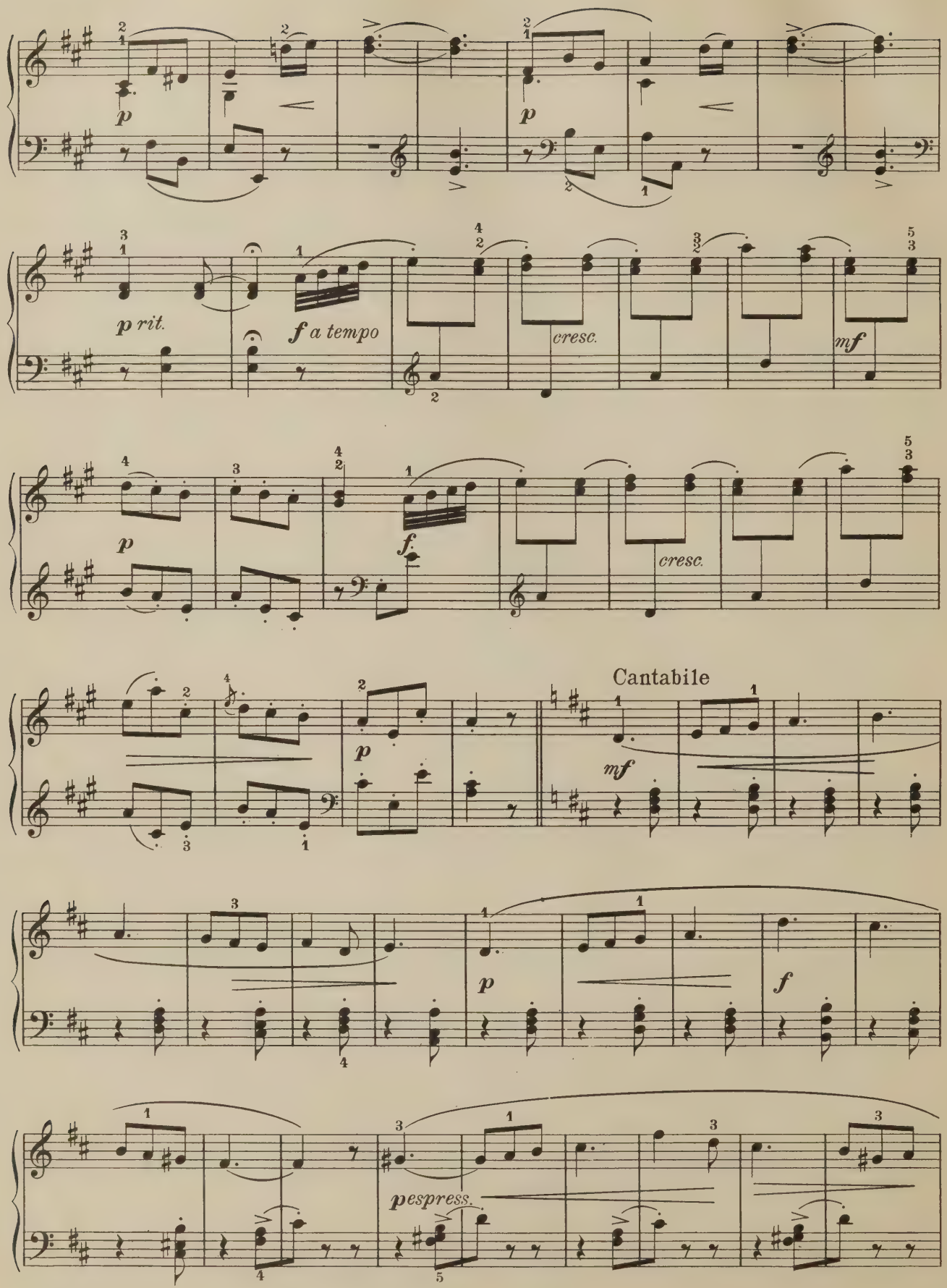

Allegretto
BERTINI
p
simile
cresc.
simile
dim.
p
simile
simile
f
dim.
simile

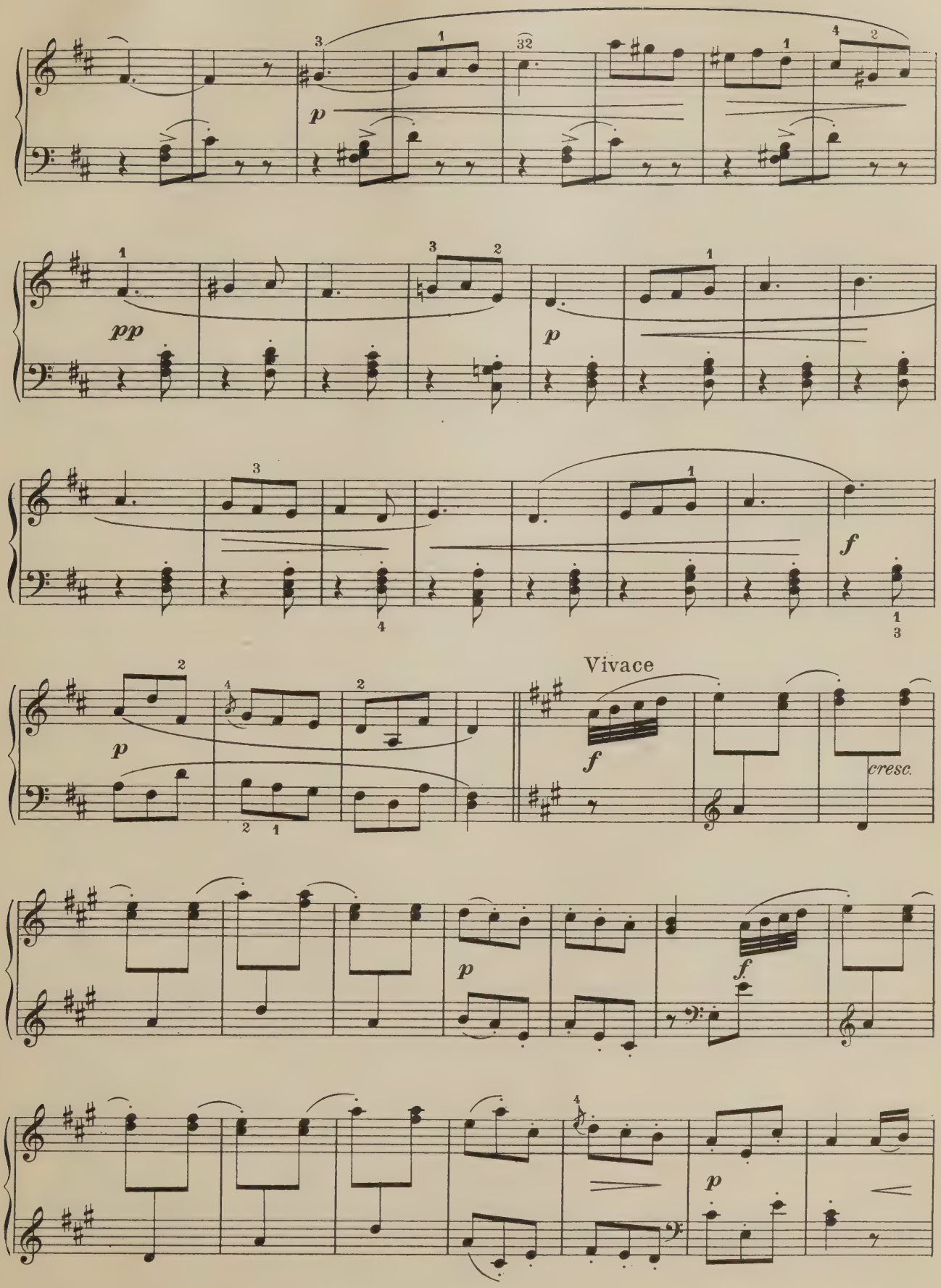


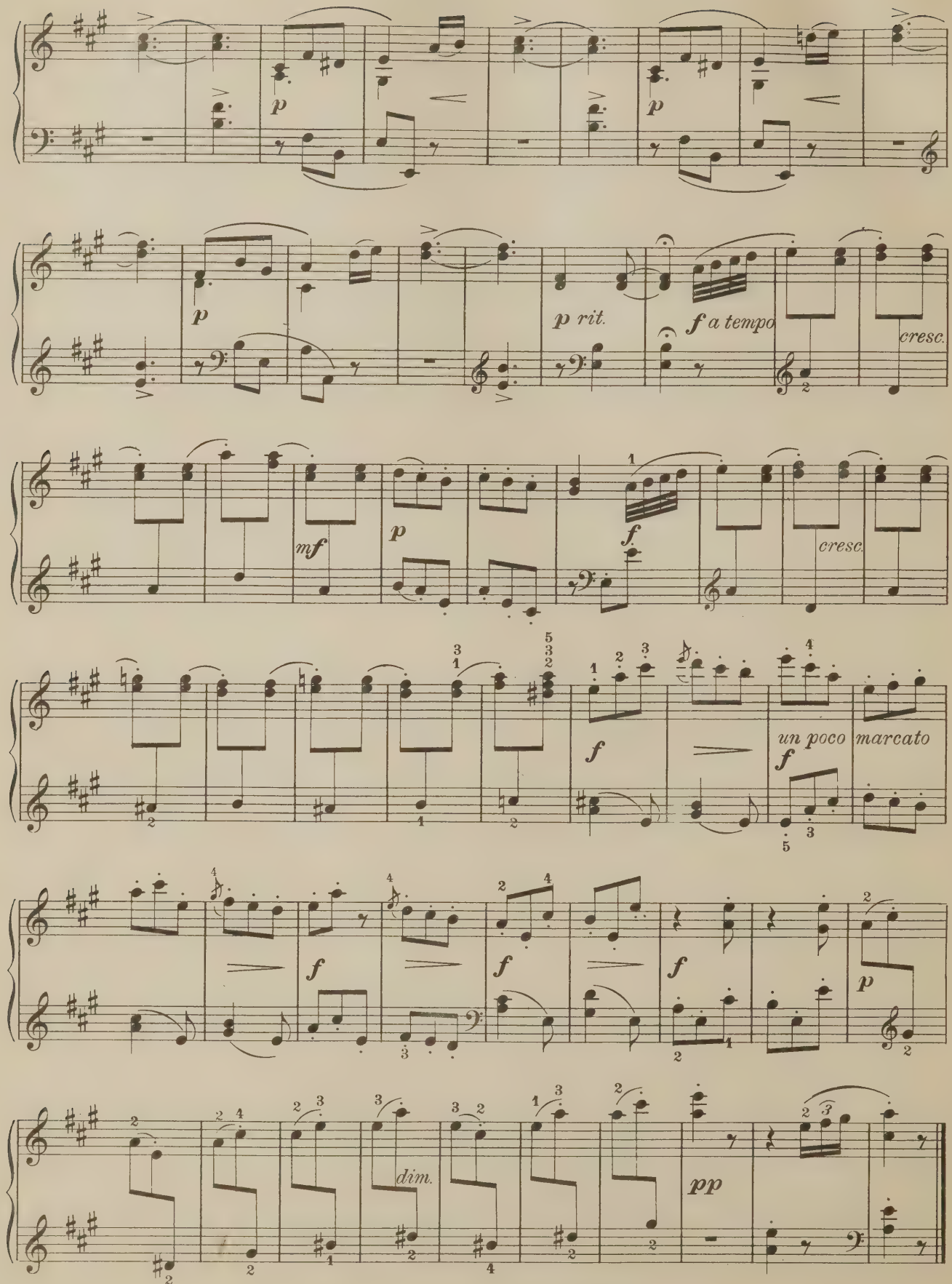
SCHERZINO

KARGANOFF



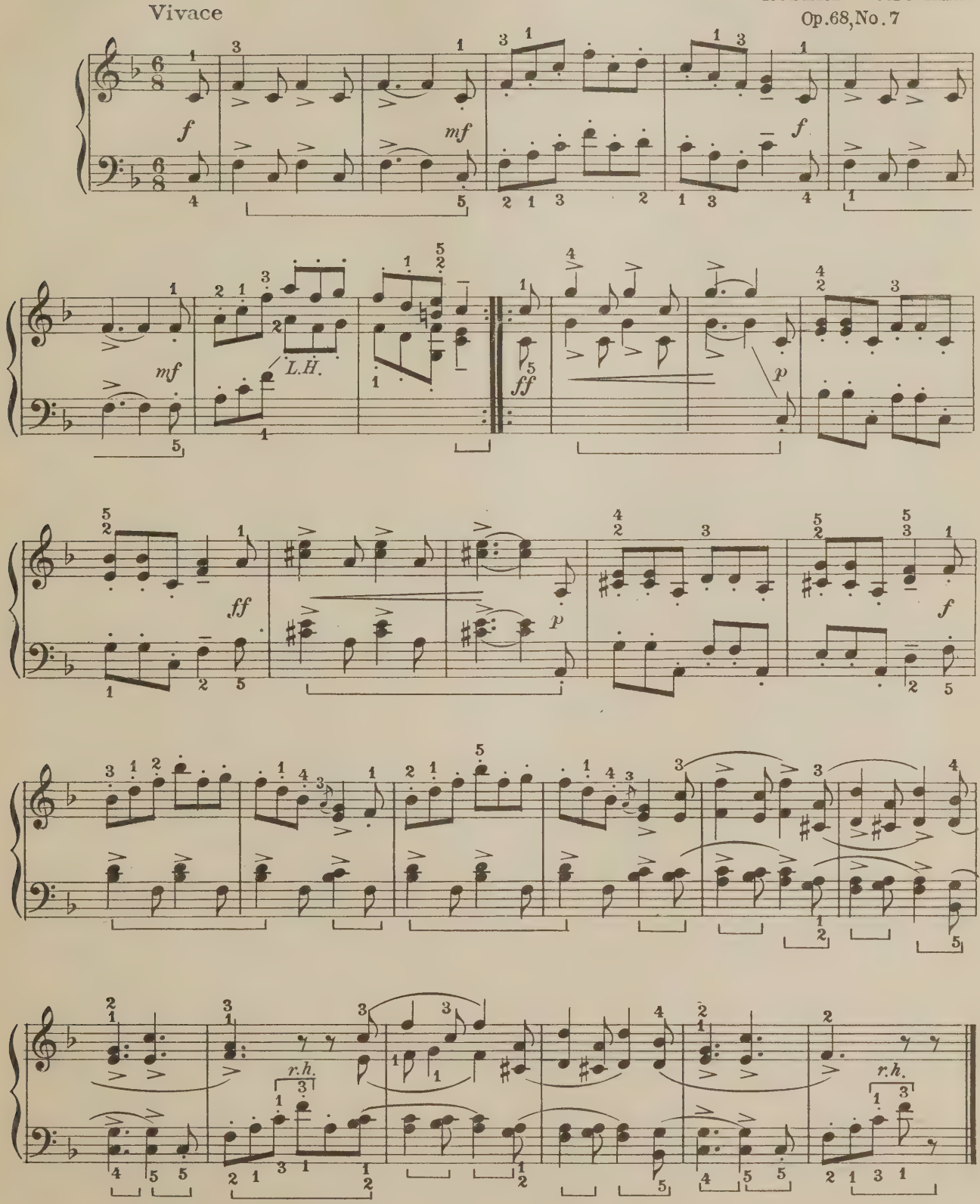

p
p
p rit.
f a tempo
cresc.
mf
p
f.
cresc.
Cantabile
p
mf
p
f
pespress.


p
pp
p
f
Vivace
f
cresc.
p
f
p


p
p
p
p rit.
f a tempo
cresc.
mf
p
f
cresc.
f
un poco marcato
f
f
f
f
p
dim.
pp

HUNTING SONG

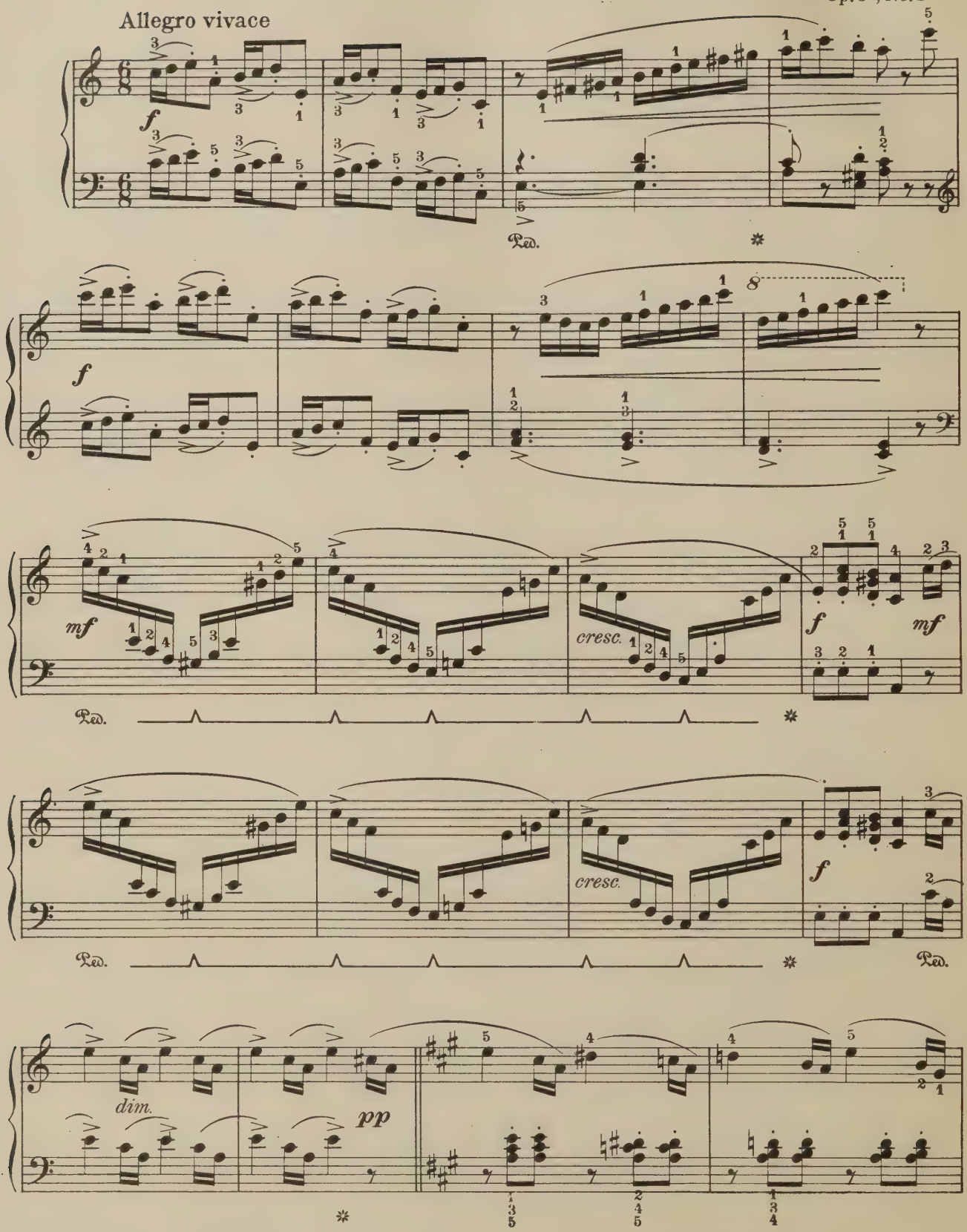
ROBERT SCHUMANN
Op.68,No.7

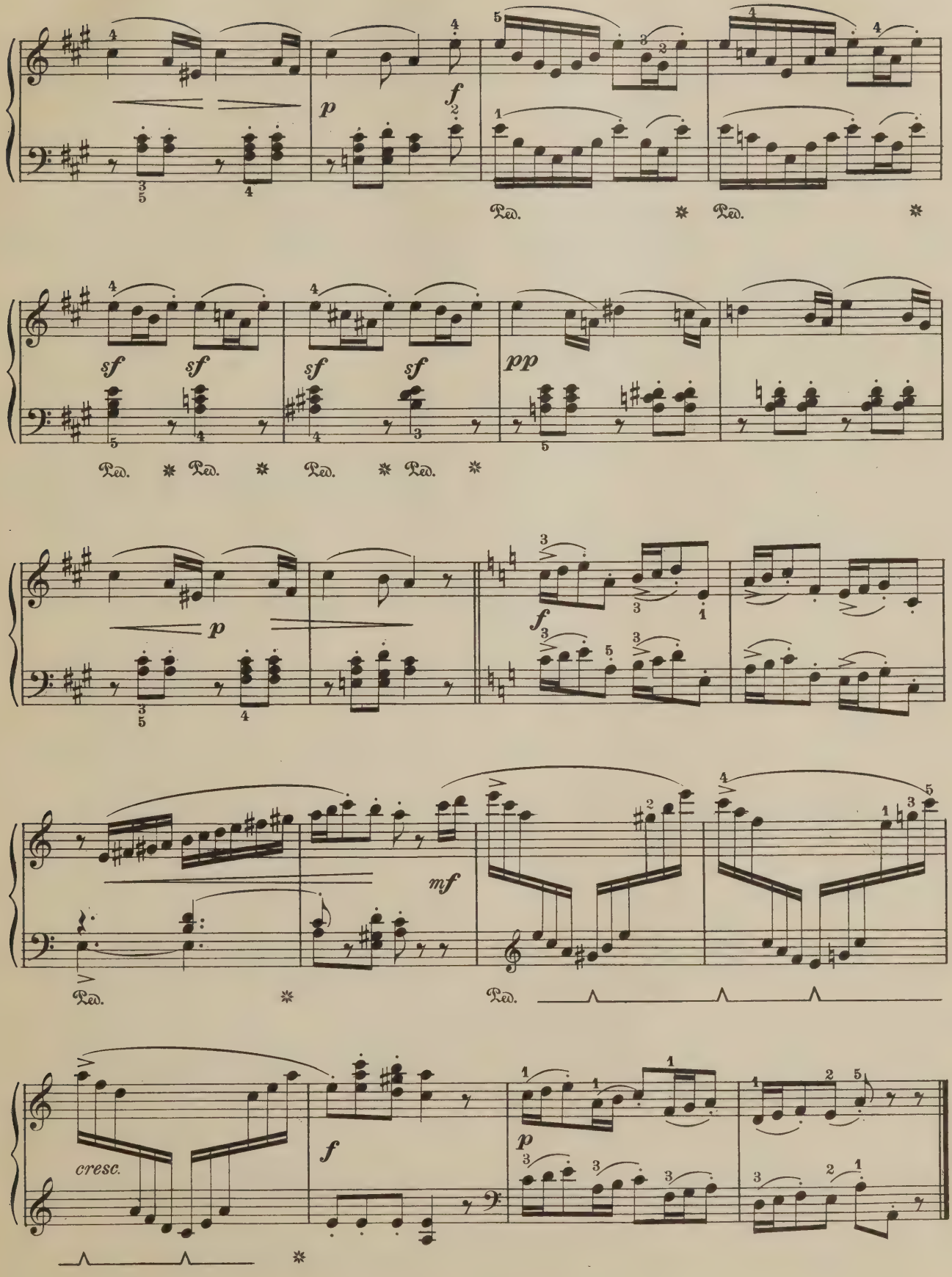


RING DANCE

("CHRISTMAS")

NIELS W. GADE
Op. 36, No. 4




p
f
Ped.
sf
pp
mf
cresc.

CUMULATIVE REVIEW AND ELABORATION OF FUNDAMENTAL TECHNIC

First Assignment

SPECIAL TECHNIC: Apply the model for *broken* Double Thirds, Example No. 1, to the complete *minor* series in the Table of Seventy-Two Double Third Trills (3-iv, Example No. 1).

ARPEGGIOS: Apply the four rhythmic patterns for Seventh Chords, Example No. 2, to the Dominant Seventh chord of the Key of *E♭* (3-vii, Example No. 6).

CHORDS: Continue the eight kinds of Triads as *broken* chords with the Damper pedal (3-vi, Example No. 2) through the Keys of *A*, *B♭* and *B;* also as *solid* chords (3-v, Example No. 6).

SCALES: Practise the *major* scales in Single Sixths in nine-note lengths in the Keys of *E* and *B*, as in Example No. 4.

REVIEW: Play the violin figures in *slurred* pairs (3-i, Exercise No. 2, IV); also the Scale in Octaves with Triplets (3-iv, Example No. 8), through all twelve Keys.

Second Assignment

SPECIAL TECHNIC: Continue the *broken* Double Thirds applied to the *minor* series in the Table of Seventy-Two Double Third Trills (3-iv, Example No. 1).

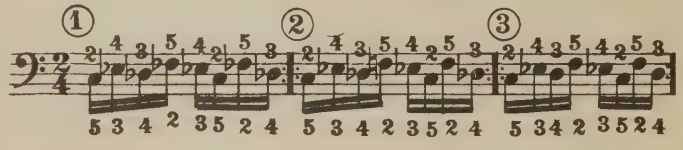
ARPEGGIOS: Alter to *minor* the model for Triad Undulations (3-iv, Example No. 4) and transpose into the Keys of *B minor* and *E♭ minor.*

OCTAVES: Practise the *major* scale in Octaves, in nine-note lengths, Example No. 3, and transpose through all twelve Keys, in the rising Chromatic Succession.

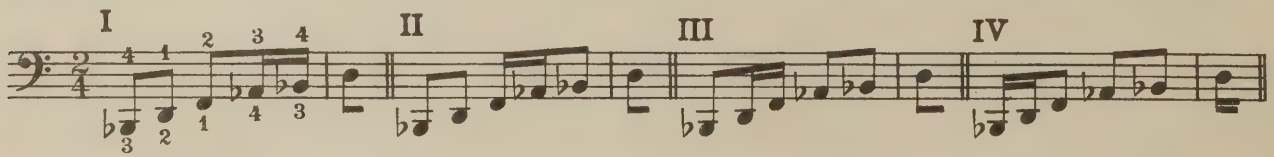
SCALES: Practise the *major* scales in Single Sixths in the Keys of *G♭* and *D♭*, in nine-note lengths, as in Example No. 4, continuing also all those which have been learned previously.

REVIEW: The Scales in Single Thirds, in nine and seventeen note lengths, in two speeds, in all twelve Keys.

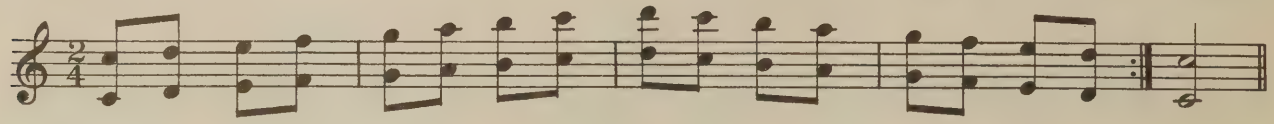
Example No. 1 Broken Double Thirds



Example No. 2 Four Rhythmic Patterns for Seventh Chords

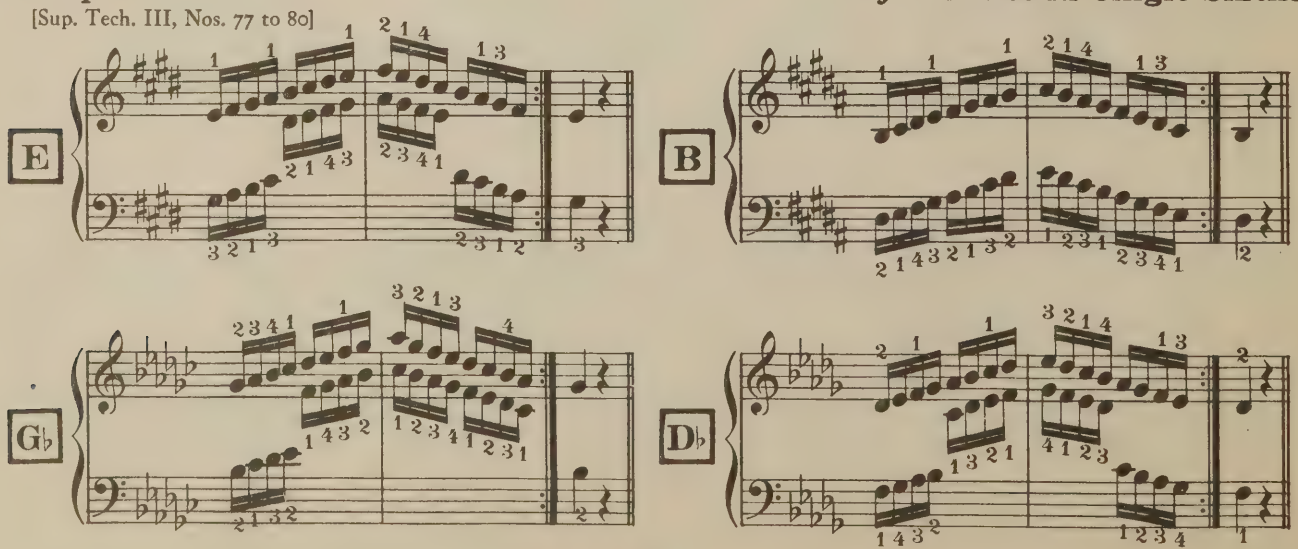


Example No. 3 Scale in Octaves, in nine-note length



Example No. 4 *Major* Scales in Single Sixths

[Sup. Tech. III, Nos. 77 to 80]



IX

THE LEGATO TOUCH

TRAINING OF THE WEAKER FINGERS

§ 1. In piano playing, as in singing and in violin playing, the *legato* style is rightly regarded as the basis of all technical proficiency. But the important difference which exists between the *legato* of the piano and that of the voice and other instruments deserves more attention than it usually gets. When a tone is produced on a string or wind instrument—and for convenience the voice may be included as a wind instrument—the application of mechanical force which incites the vibrations is continuously active during the entire duration of the tone. For example, the violin string is set into vibration by the drawing of a bow across it. The tone is continuously under the control of the bow; when the bow stops the tone stops, and only then. The human voice, or a tone played on a clarinet, results from the action of a column of air against the vocal cords or the clarinet reed, as the case may be. This action is continuous for the duration of the tone, the same as with the violin bow. It is this continuous control of the tone-producing mechanism, that enables the singer or the violinist to vary the intensity of the tone WHILE IT IS SOUNDING.

This kind of control is not possible on the piano. The pianist may choose how he desires to attack a tone, the stroke of the finger is conveyed to the hammer, which strikes the string and immediately rebounds. After this the tone is entirely out of the control of the player, except to stop it when he gets ready. The element of continuous control of the tone-producing action is absent. A tone once struck can not be made louder.

As far as concerns the action of the hammer upon the string, there is no difference at all between *legato* and *staccato*. Whether the tone is a smooth *legato* or a crisp *staccato*, the hammer remains in contact with the string for exactly the same period of time, since in both cases the rebound must be practically instantaneous in order not to damper the tone as soon as it is sounded. One often hears: "Keep the key down to hold the hammer against the string." It will do nothing of the sort; if it did, the string could not vibrate at all. To hold the key down is to hold a damper AWAY from the string, so it can sound. To release this key is to let the damper fall AGAINST the string and STOP the vibration. The only difference then between *legato* and *staccato*, is in the holding or releasing of the damper. The tone cannot be made louder, nor can it even be sustained at the same power. The use of the damper pedal or the holding down of the key permits the tone to continue, but even then it will quickly *diminuendo* or die out. In this sense the piano should be classed as a percussion instrument, as a drum, or a plectral instrument, as a guitar, rather than as a stringed instrument.

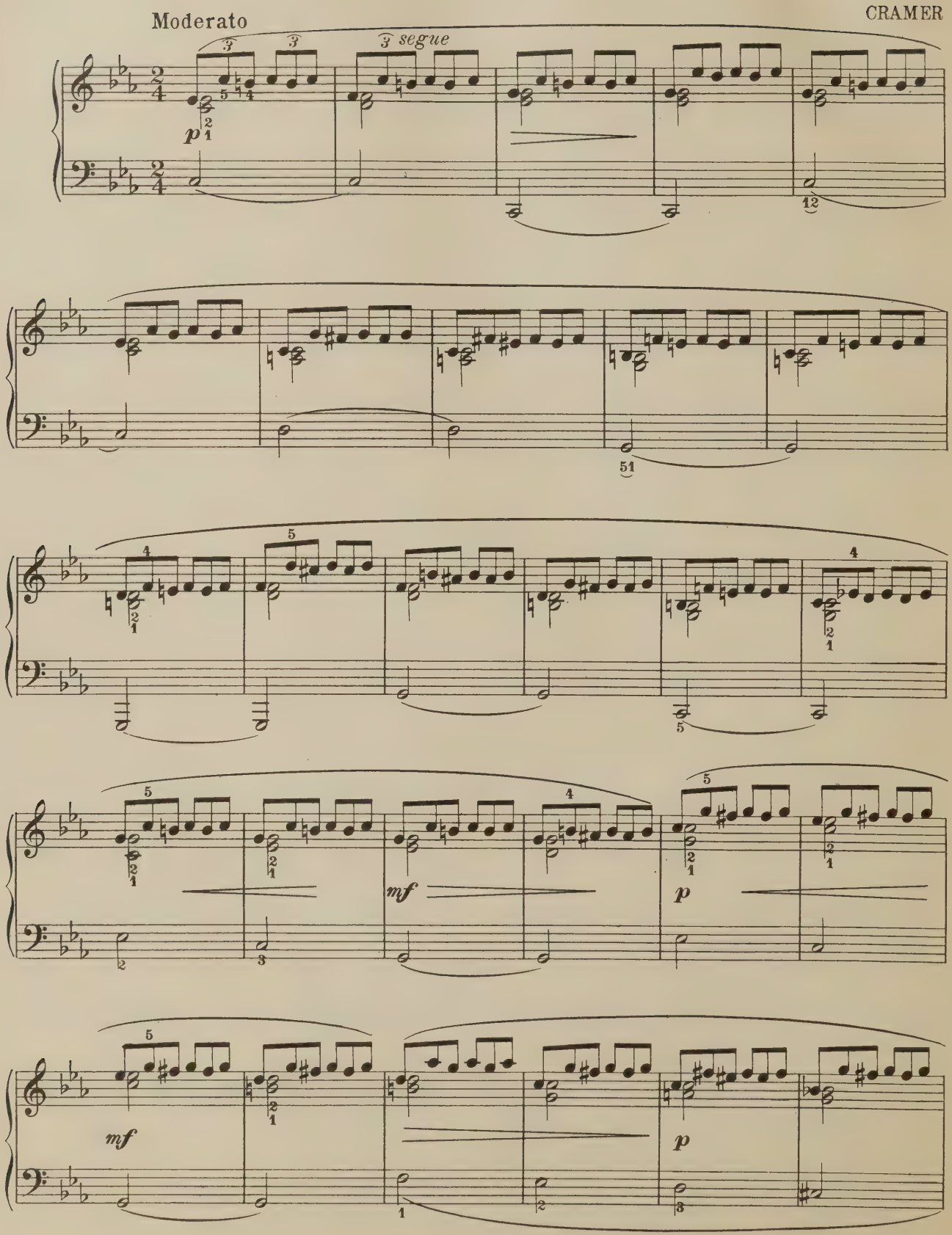
Applying these facts to actual playing it is seen that in the *legato* touch the damper does not return to its string until just after the next tone is sounded. These tones are joined by a slight overlapping which if carefully done is itself inaudible. Since the first tone begins to diminish in volume the instant after it is sounded, a perfect *legato* requires in theory that the second tone be played with less force so that it does not exceed the degree of loudness to which the first tone has diminished.

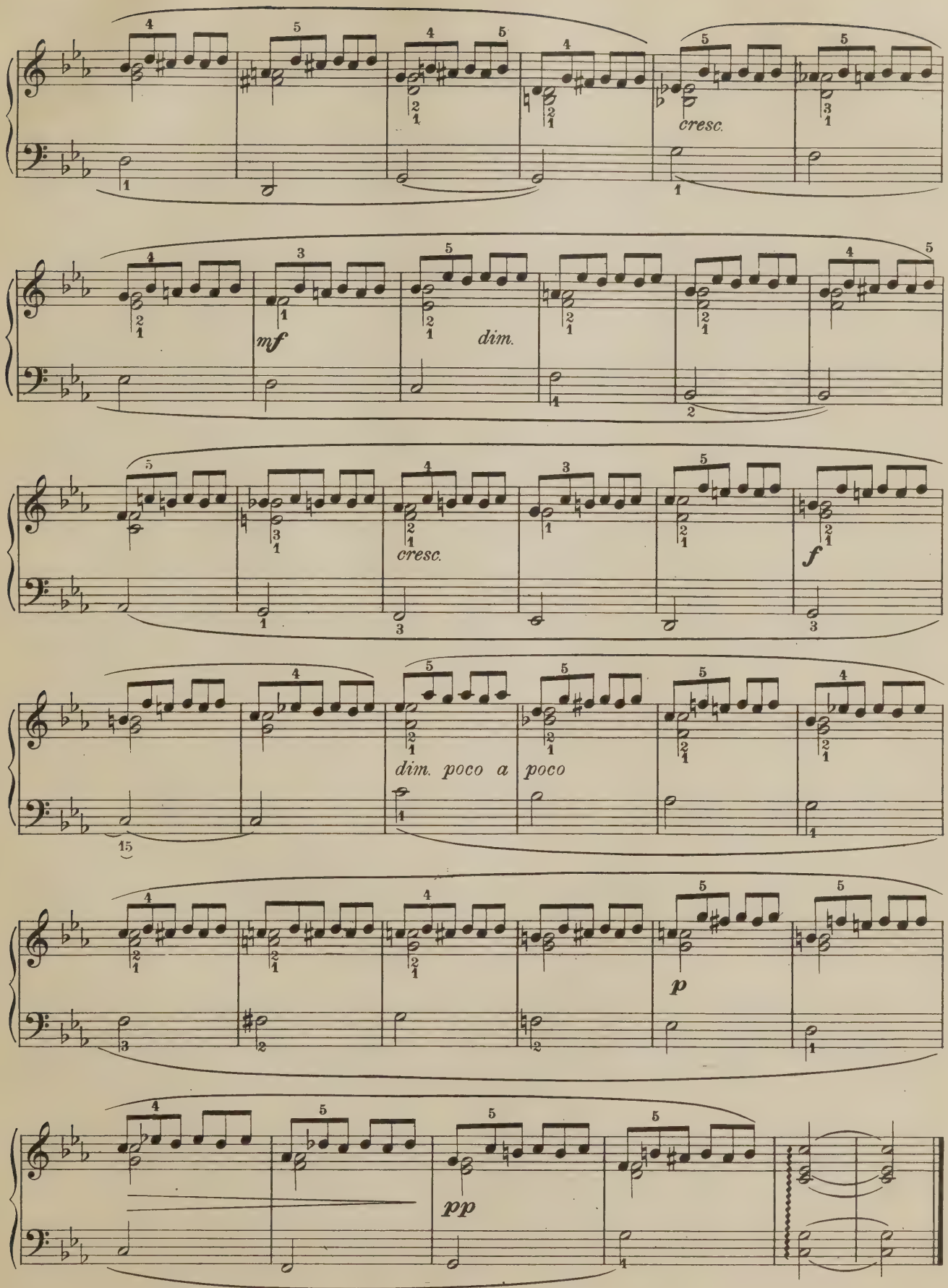
As has been explained, perfect equalization of finger strength is impossible, but distinction should be made between strength and agility. Even if the weaker fingers can never be made as strong as the stronger fingers, they can be made less unmanageable. For the training of the weaker fingers, the ETUDE in *C minor* by *Cramer* has become a classic, especially for the fourth and fifth fingers of the right hand. Practise slowly at first, and be sure that the eighth notes are played as written—two groups of three and not three groups of two.

Revery, *Bergé* [PAGE 60]

§ 2. As disclosed in the sub-title, this composition is a study in *legato* playing for the thumb of the right hand. Although the *legato* may be secured by the use of the Damper pedal, a much better result will be obtained by practising as far as Tempo I without the pedal, connecting the tones with thumb action alone. The notes in the right-hand part written with stems down are all played with the thumb. Practise these melody tones first, omitting the chords.

ETUDE



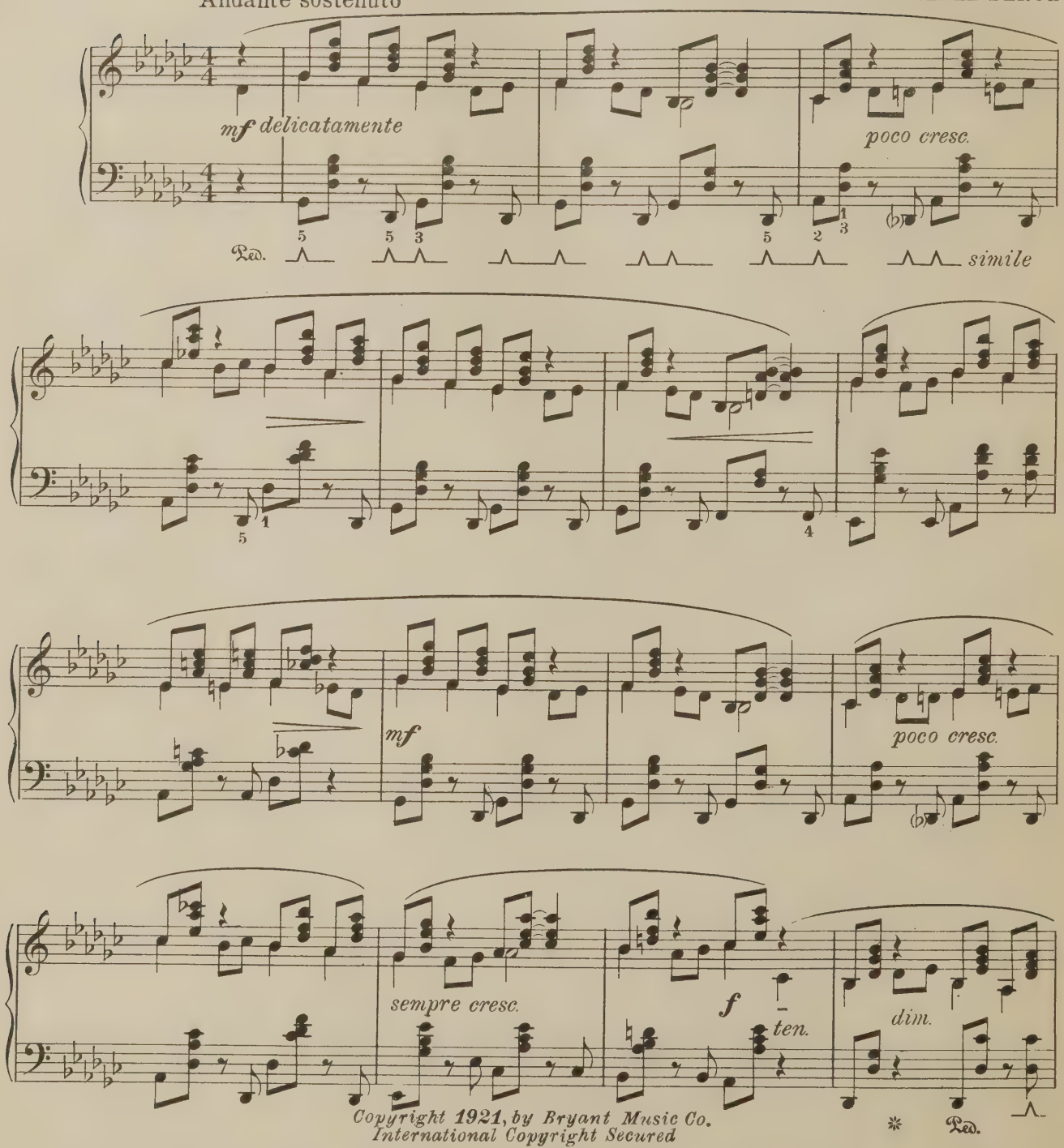

cresc.
mf
dim.
cresc.
f
dim. poco a poco
p
pp

SERENADE

SONG OF THE THUMB

Andante sostenuto

IRÉNÉE BERGÉ



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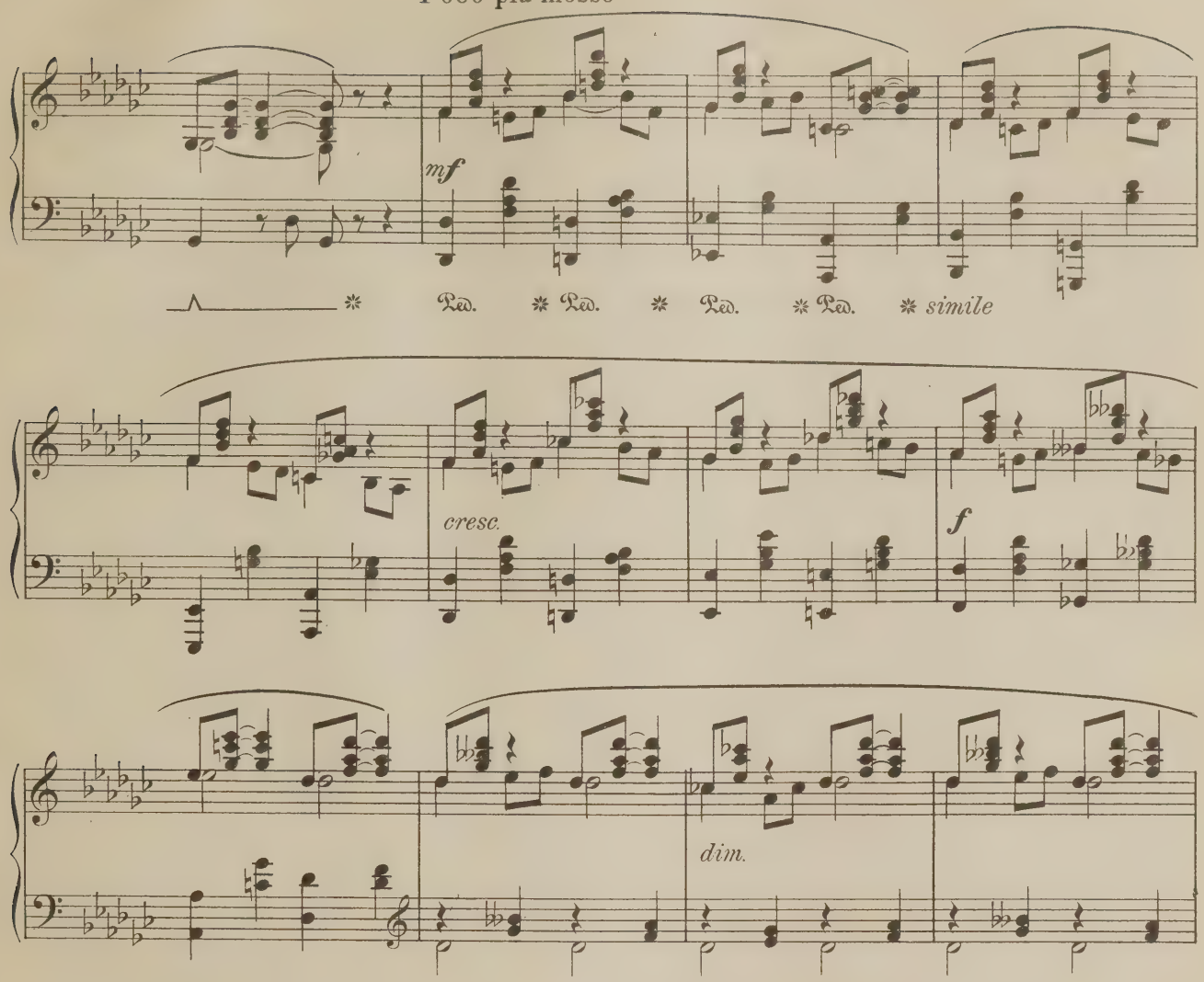
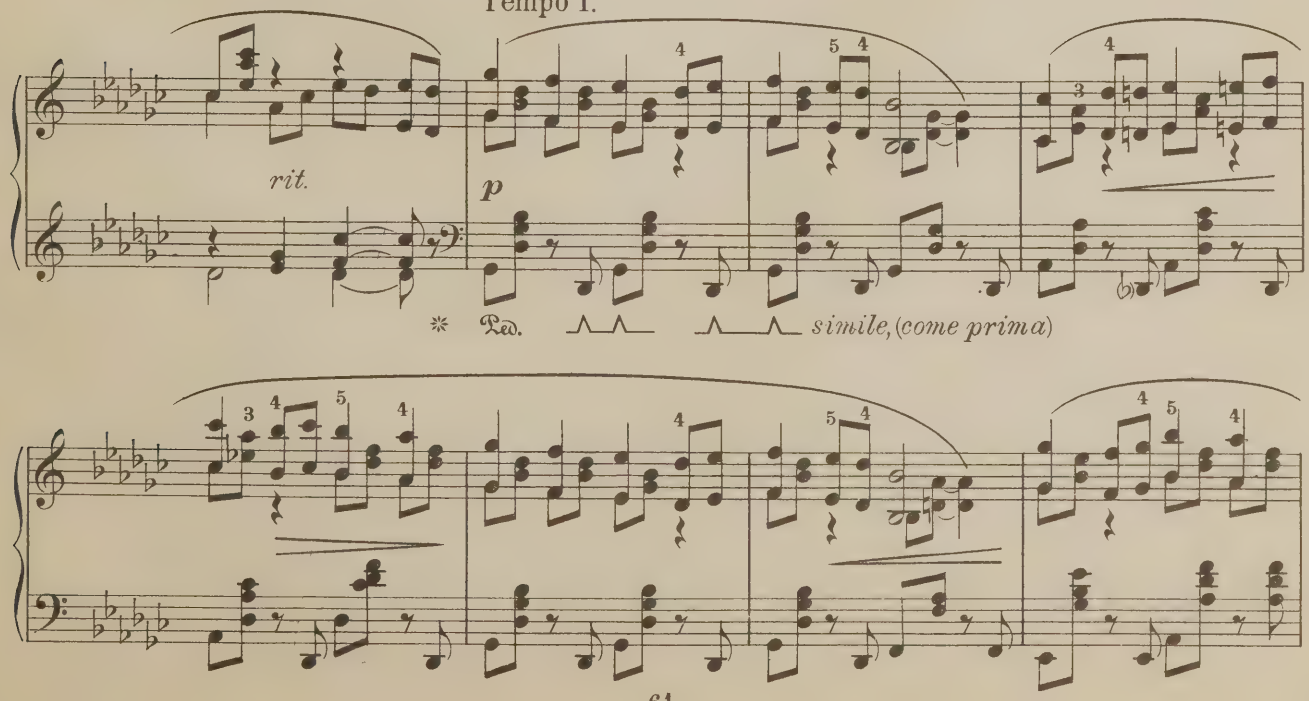
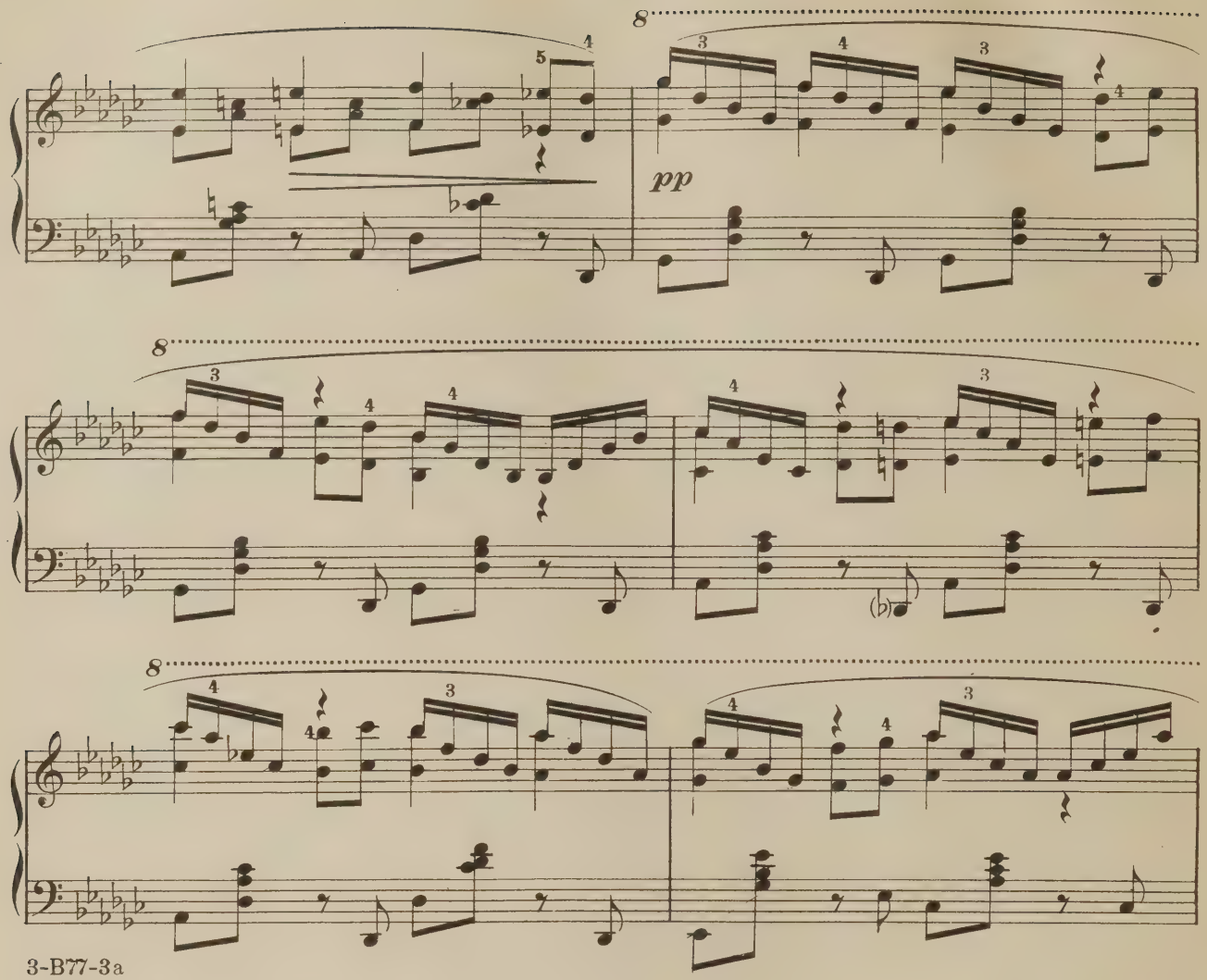
International Copyright Secured

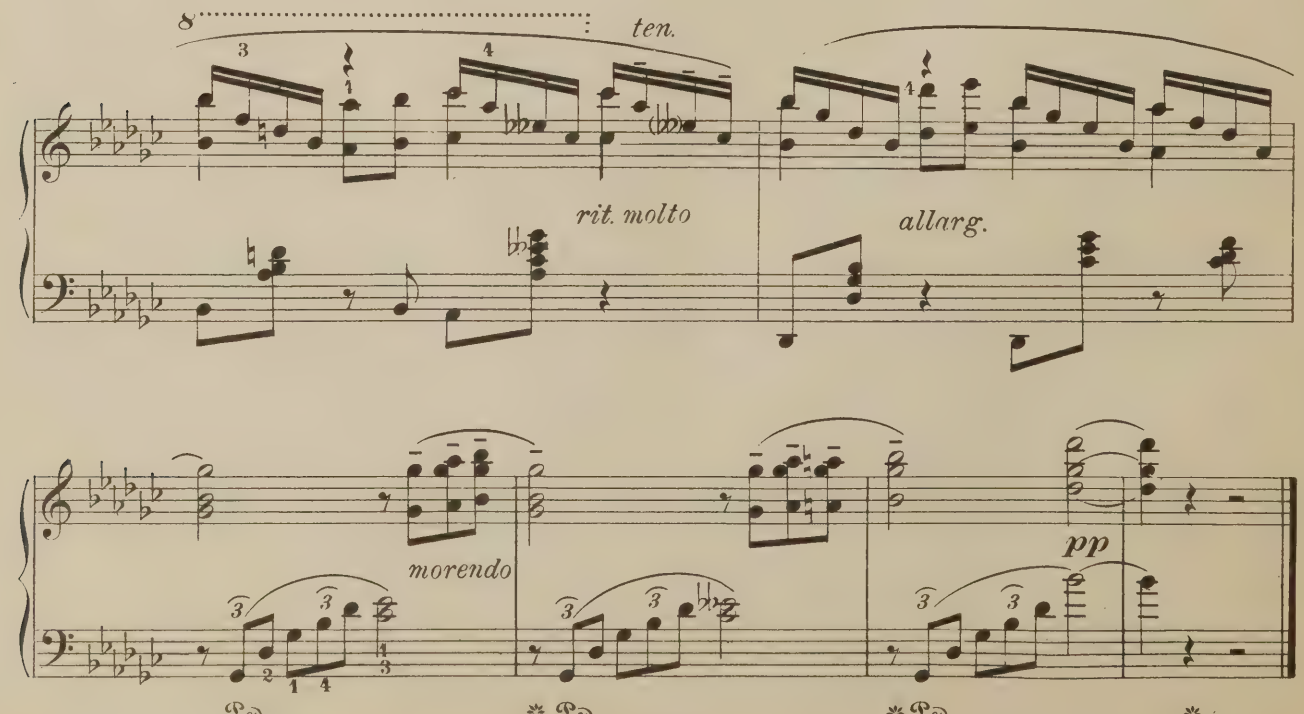
Poco più mosso



Tempo I.



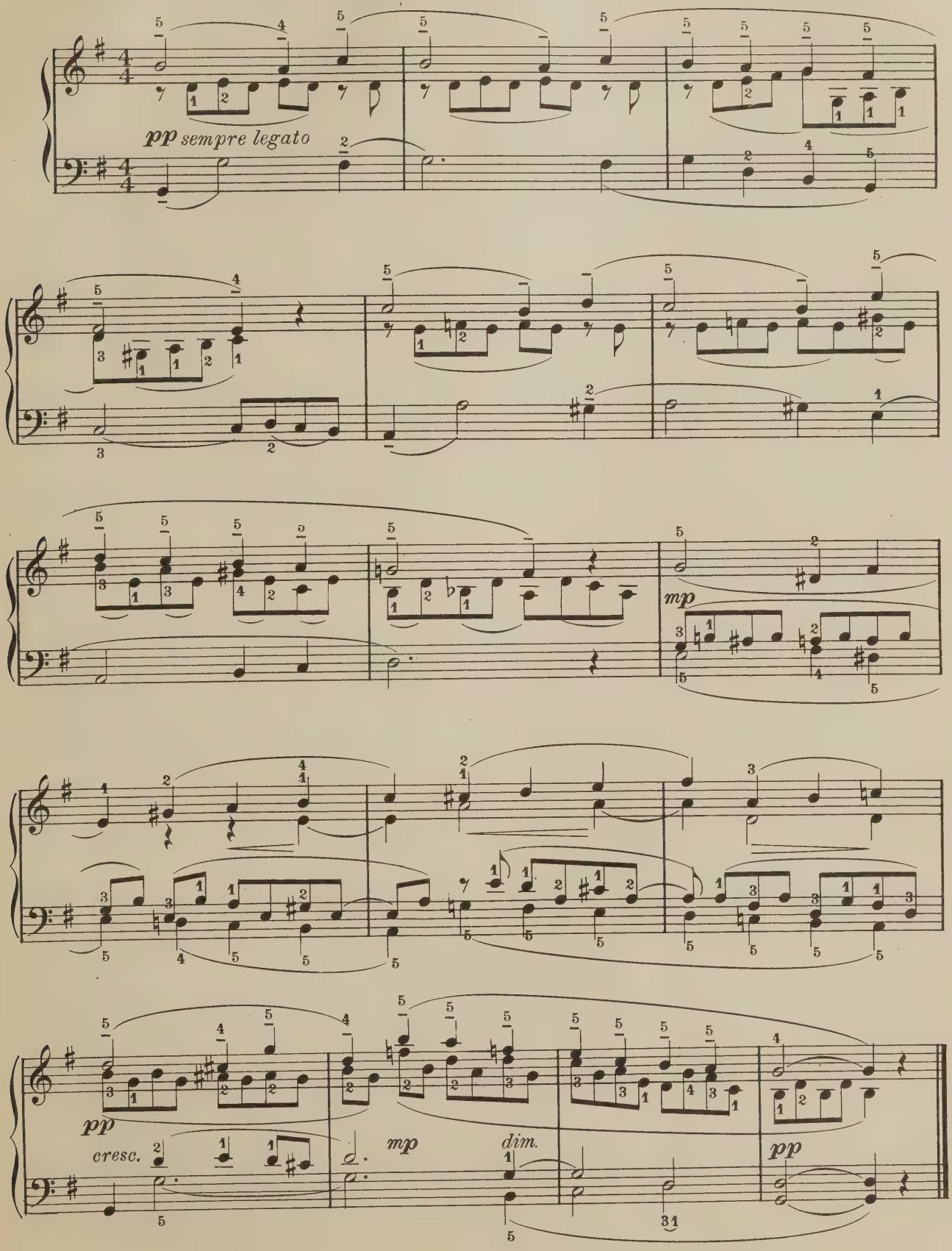

8
pp
8
8
3-B77-3a


8
ten.
rit. molto
allarg.
morendo
pp
Ped.
Ped.
Ped.

DOLCE FAR NIENTE

Andante con moto

MORTIMER WILSON
Op. 43, No. 4



CUMULATIVE REVIEW AND ELABORATION OF FUNDAMENTAL TECHNIC

First Assignment

SPECIAL TECHNIC: Practise the third of the special Trill fingerings for Velocity (3-v, Example No. 4C) with the right hand alone, the metronome speed gradually increasing from 80 to 126 to a *quarter* note. Practise also over *A♭ B♭*. With the left hand alone, practise the Diatonic Seconds and Thirds using the fingers 4 5 as in Example No. 3.

ARPEGGIOS: Practise the Dominant Seventh chords in all twelve Keys, using the rhythmic and dynamic model in Example No. 4.

CHORDS: Play the Dominant Seventh to Tonic resolutions in the Key of *F major* in rolled dispersed chords as in Example No. 1.

SCALES: Practise the *major* Scales in Single Sixths, in nine-note lengths, in the Keys of *A♭* and *E♭*, as in Example No. 7.

REVIEW: Of five-finger exercises in the normal hand position, there can be made twenty combinations of two fingers each, as follows:

The Twenty Pairs of Fingers:

5	1	2	1	1	5	4	5	3	1
5	2	2	3	1	4	4	3	3	2
5	3	2	4	1	3	4	2	3	4
5	4	2	5	1	2	4	1	3	5

Practise each of these pairs of tones as Tremolos in three speeds, as in Example No. 5.

Second Assignment

SPECIAL TECHNIC: Apply the model for *broken* Double Thirds (3-viii, Example No. 1) to the three Double Third Trills in the *major* series (3-iv, Example No. 2), and continue through the complete *major* series in the Table of Seventy-two Double Trills (3-iv, Example No. 1).

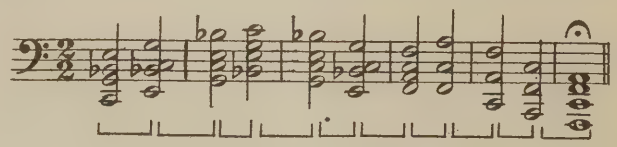
ARPEGGIOS: Apply the Model for *broken* Triad *arpeggios*, Example No. 2, to the Second Inversions of the *F♯ major* and *E♭ minor* Triads (*A♯ C♯ F♯: G♭ B♭ E♭*).

OCTAVES: Practise the *major* Scale in Octaves with Quadruplets, as in Example No. 6, transposing through all of the *sharp* Keys.

SCALES: Practise the *major* scales in Single Sixths, in nine-note lengths, in the Keys of *B♭* and *F*, as in Example No. 7.

REVIEW: The *major* Scales in Single Sixths in all of the Keys previously assigned.

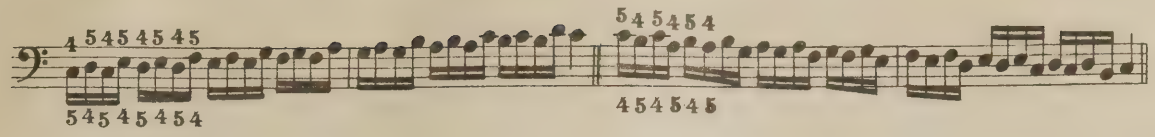
Example No. 1 **Dispersed Cadences**



Example No. 2 **Model for *Broken* Triad *arpeggio: C major***

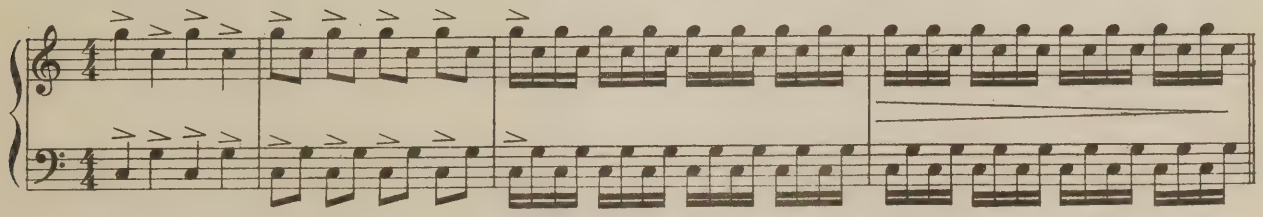
[Sup. Tech. III, No. 14]

Example No. 3 — **Seconds and Thirds for the Weaker Fingers**



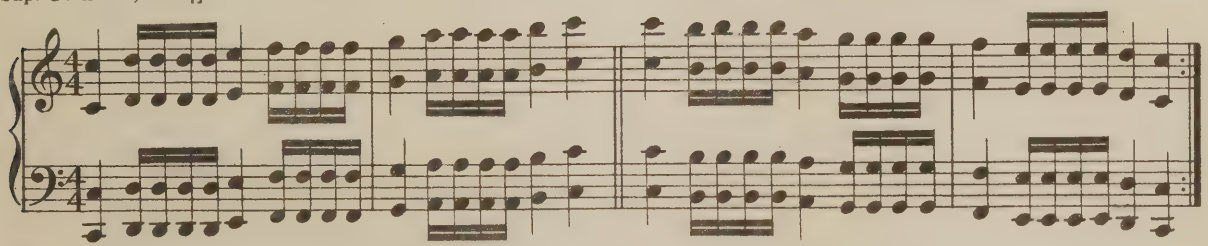
Example No. 4 — **Seventh Chords with Triplets**

Example No. 5 — **Rhythmic Model for Tremolos in Three Speeds**



Example No. 6 — **Scale in Octaves with Quadruplets**

[Sup. Tech. III, No. 4]



Example No. 7 — ***Major* Scales in Single Sixths: Keys of *A*♭, *E*♭, *B*♭ and *F***

[Sup. Tech. III, Nos. 1 to 4]

X

REVIEW AND RECREATION

§ 1. Passing in review over the subjects treated in the nine preceding chapters, attention is called to the fact that there are represented the most fundamental elements in piano playing, from the standpoints both of technic and of interpretation. Subjects such as finger independence and agility, scales, *arpeggios*, chords, the *legato* and *staccato* touches, contribute the indispensable elements of piano playing. Future work must be more or less of an elaboration of these elements. Although these fundamentals of the musical language are comparatively simple in themselves, the infinite number of complex combinations that are possible out of these elements of music, makes the language of music and its interpretation on the piano a subject so vast that it can never be completely exhausted.

In the pieces in this chapter greater stress is placed upon musical interpretation than upon mere piano technic. The *legato* style is represented in the Russian Folk Song, "Schöne Minka," which should be transposed into all twelve Keys. The Waltz Serenade by *Poldini* and *Couperin's* Soeur Monique are also prevailingly *legato*. The latter is particularly effective for recital and concert use and should become a permanent part of the student's repertoire. Opportunity for a review of *staccato* playing is found in At Parting by *Reinecke*. If more detailed review is required on any special point, return to the proper chapter and strengthen the vulnerable spots in the pianistic armor. The student should select at least one study and one piece illustrating each of the three main technical elements—scales, *arpeggios*, chords—and make them absolutely his own by memorizing them and constantly reviewing them.

CUMULATIVE REVIEW AND ELABORATION OF FUNDAMENTAL TECHNIC

First Assignment

Special Technic: Of the Table of Sixty Fingerings with one Double note (3-vii, Example No. 3), practise groups 43 to 48 sustaining the fingers 3 2, and groups 49 to 54 sustaining the fingers 3 1, applying the rhythmic model in Triplets (3-viii, Example No. 2).

Arpeggios: Apply the four preparatory exercises for Velocity arpeggios (3-vi, Example No. 4) to the Keys of *G*, *D*, *A*, *E*, *F* and *B♭* (3-vi, Example No. 3; 3-vii, Example No. 5) on each of the five metronome speeds from 72 to 88 to a *quarter* note.

Octaves: Practise the *major* Scale in Octaves with Quadruplets (3-ix, Example 6), through all of the *flat* Keys.

Scales: Continue the *major* Scales in Single Sixths, in nine-note lengths, in the Keys of *F*, *B♭*, *E♭* and *A♭* (3-ix, Example No. 7).

Review: The *major* Scales in Single Thirds, in seventeen-note lengths (3-vii, Example No. 10).

Second Assignment

Special Technic: Practise the fourth of the Special Trill fingerings for Velocity (3-v, Example No. 4D), using the tones *F G* and *D♭ E♭;* also as applied to the Rhythmic Model for Trills in Three Speeds, Example No. 1, the metronome speed increasing from 72 to 92 to a *quarter* note.

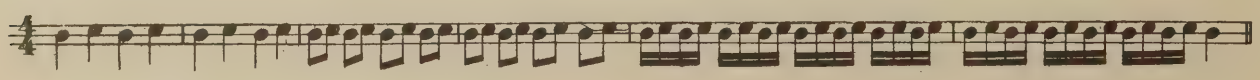
Arpeggios: Apply the Model for Triad Undulations (3-iv, Example No. 4) to the Triads of *F♯ major* and *E♭ minor*.

Chords: Play the eight kinds of Triads in Modulatory Sequence, as *solid* chords (3-v, Example No. 6) and as *broken* chords with the Damper pedal (3-vi, Example No. 2), continuing the series through all Keys.

Scales: Play the *major* Scales in Single Sixths in all Keys, Example No. 2.

Review: Scale Variations A and E (3-iv); also continue the application of the two measure combinations of the Eight Fundamental Rhythmic Patterns to the Scales in all twelve Keys.

Example No. 1 **Rhythmic Model for Trills in Three Speeds**

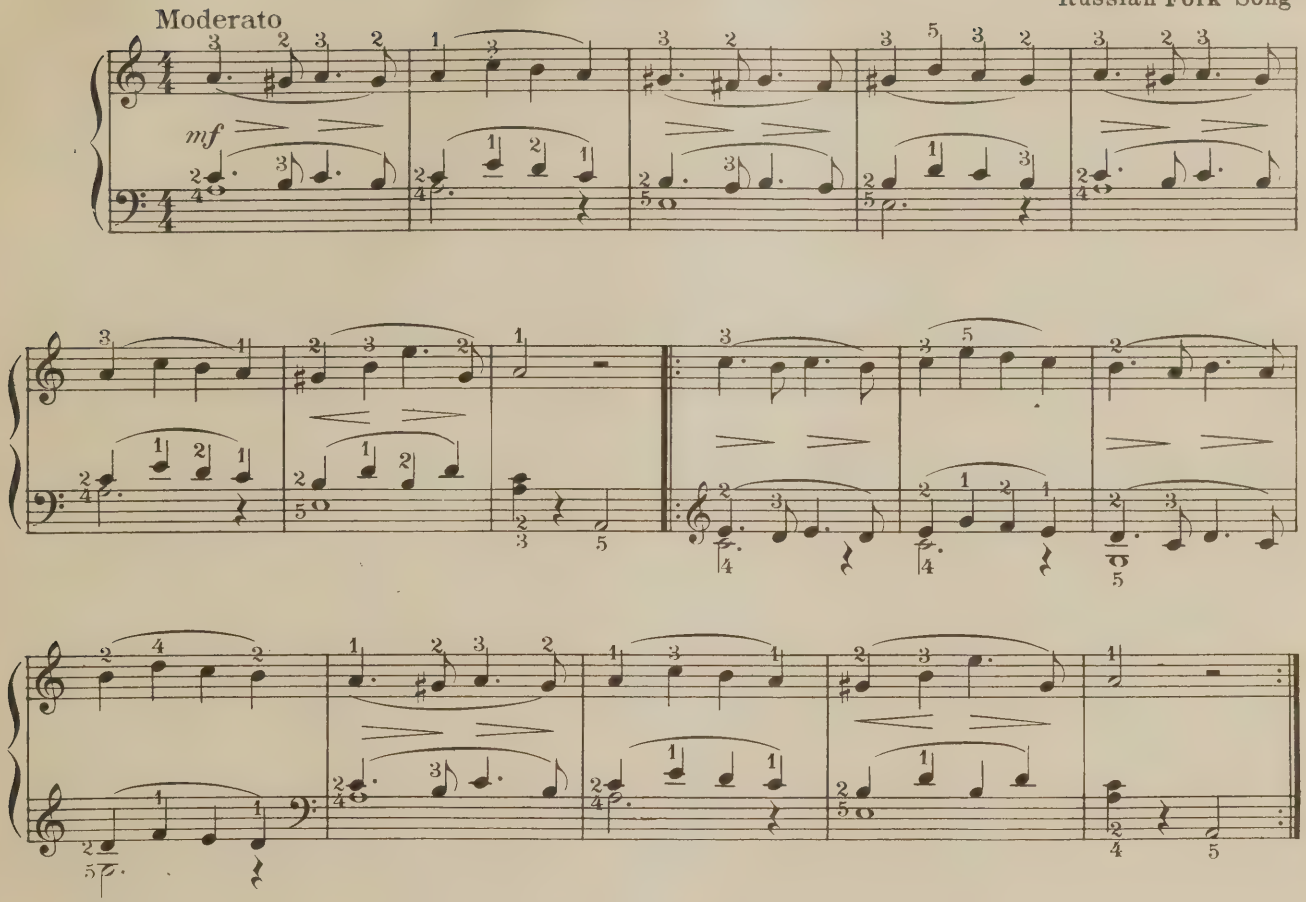


SCHÖNE MINKA

TRANSPOSITION STUDY

CANCIÓN RUSA
Russian Folk Song

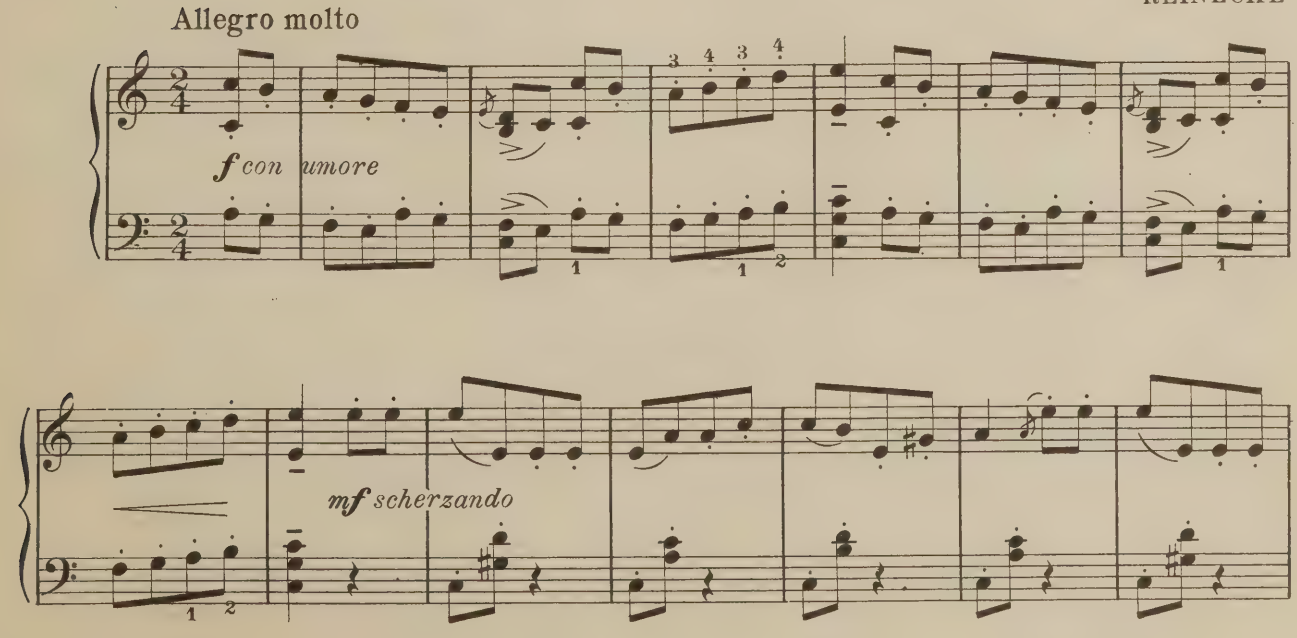
Moderato

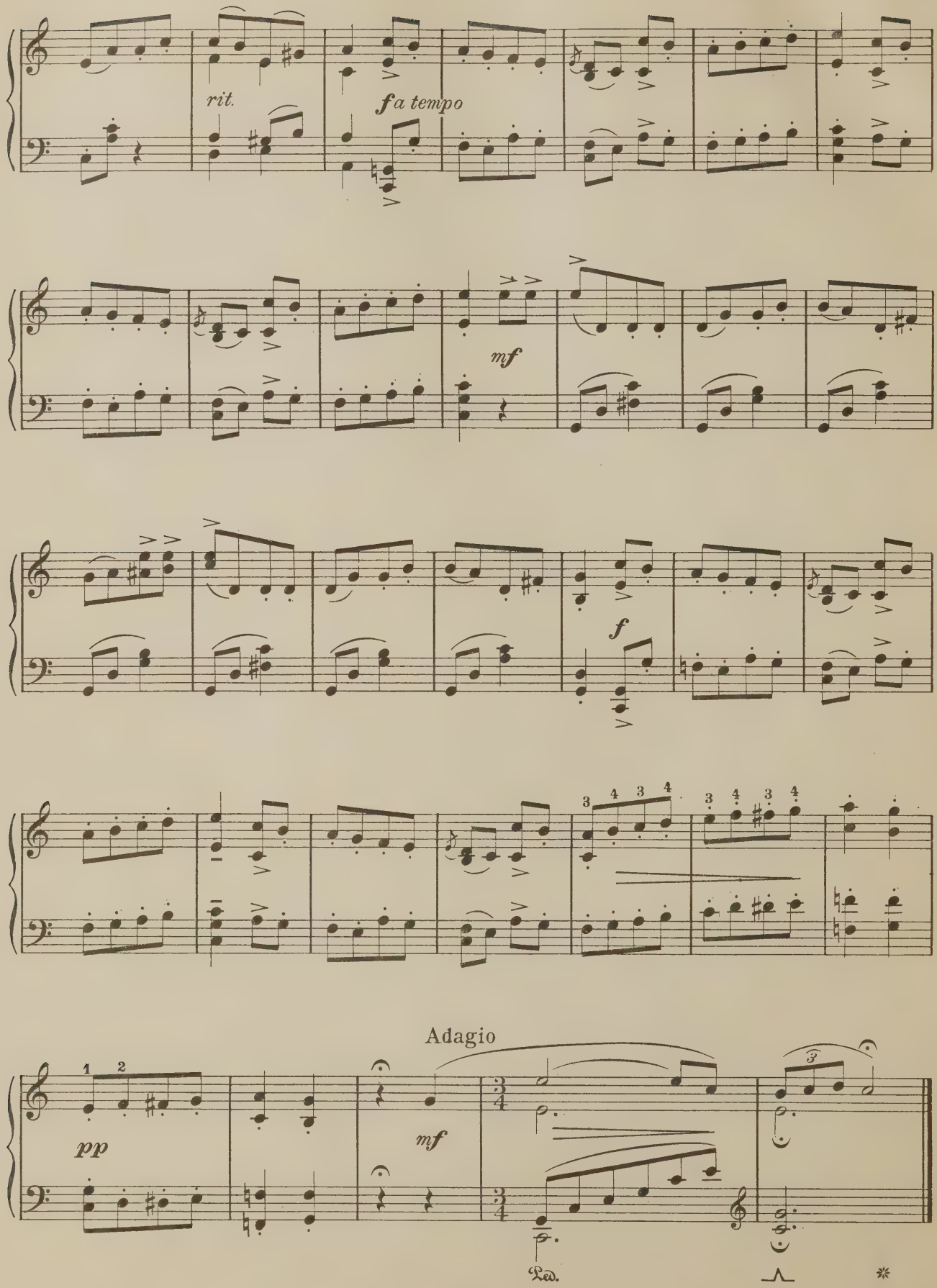


AT PARTING

REINECKE

Allegro molto



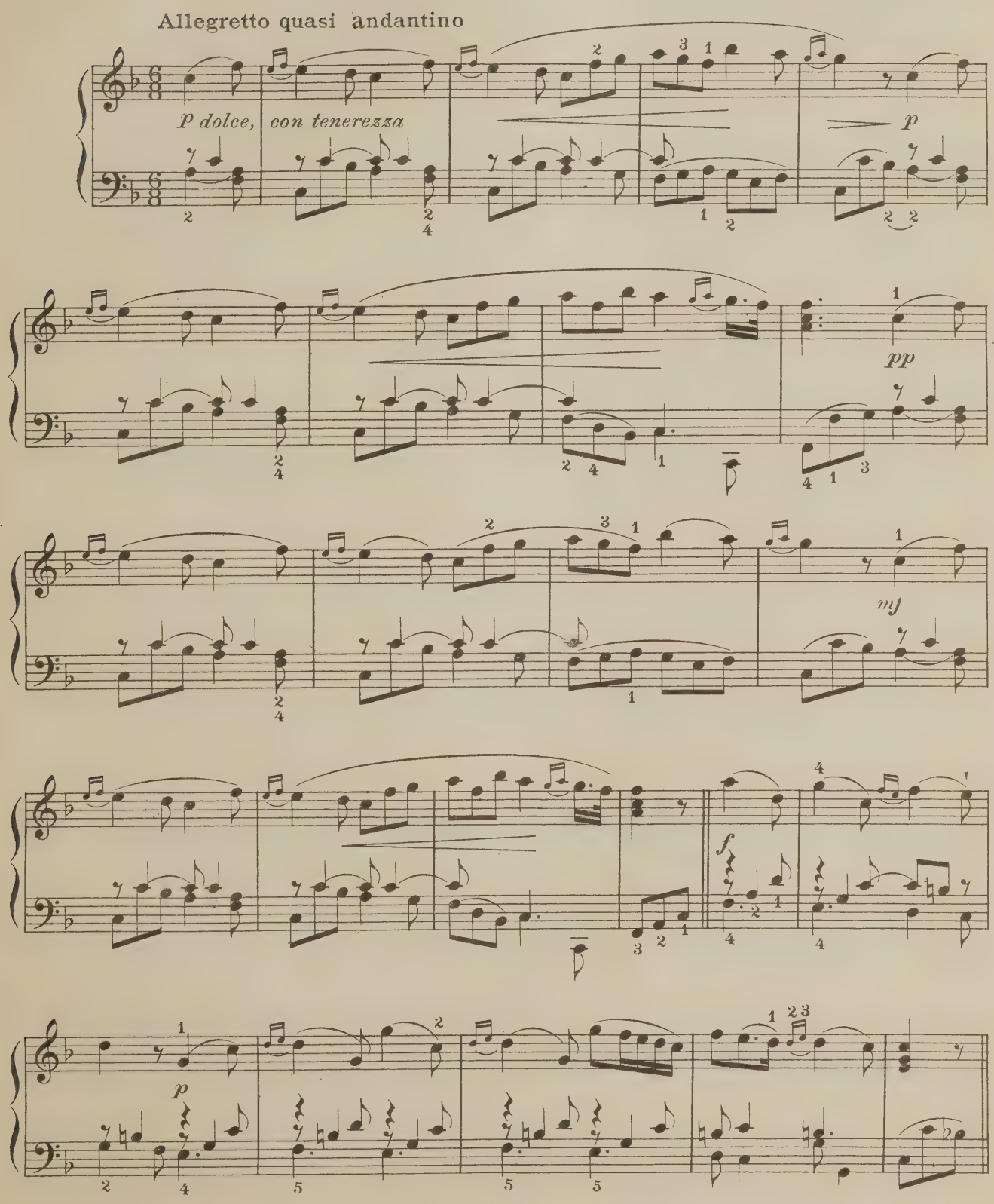

rit.
a tempo
mf
f
Adagio
pp
mf
Ped.

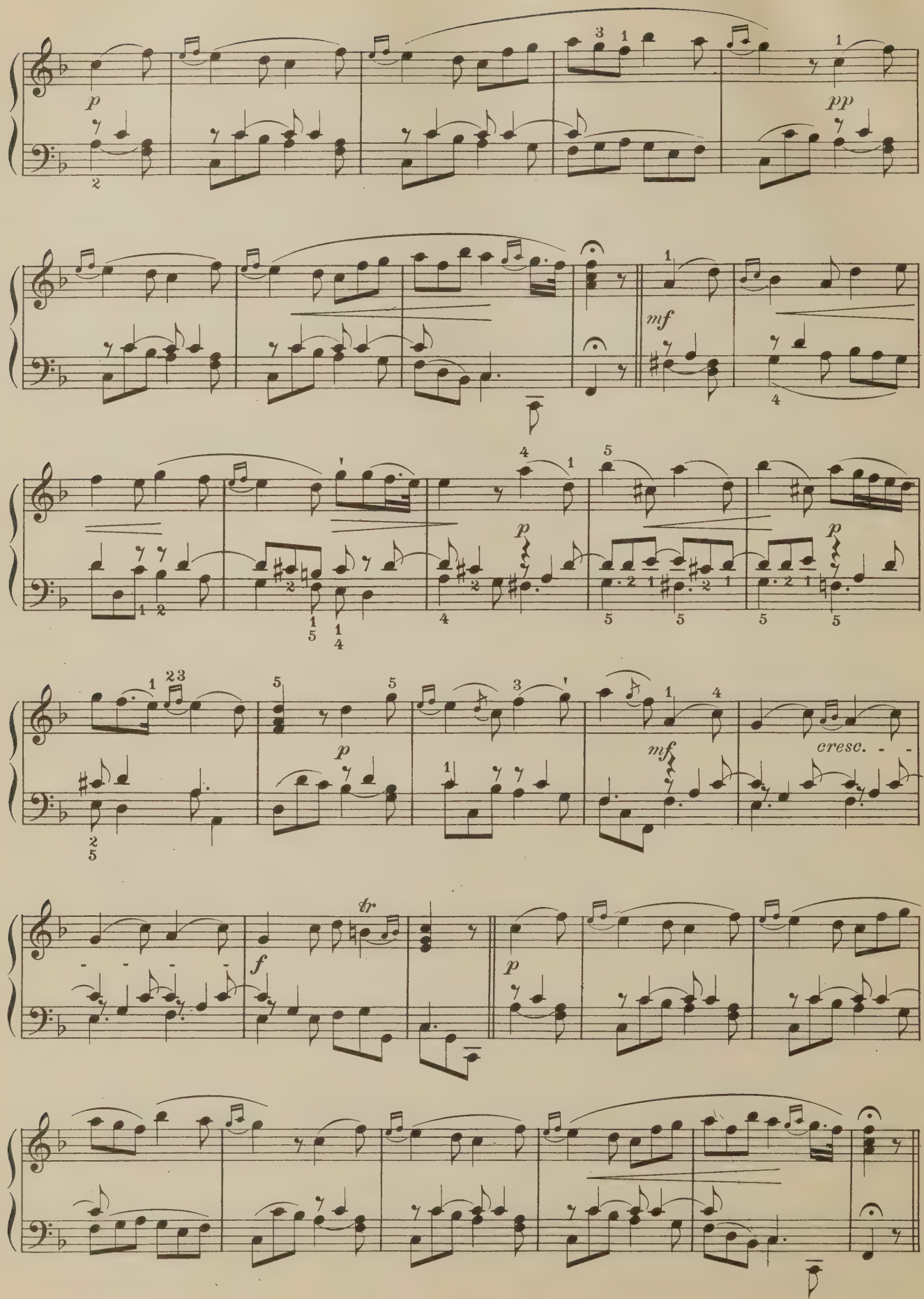
THE NUN

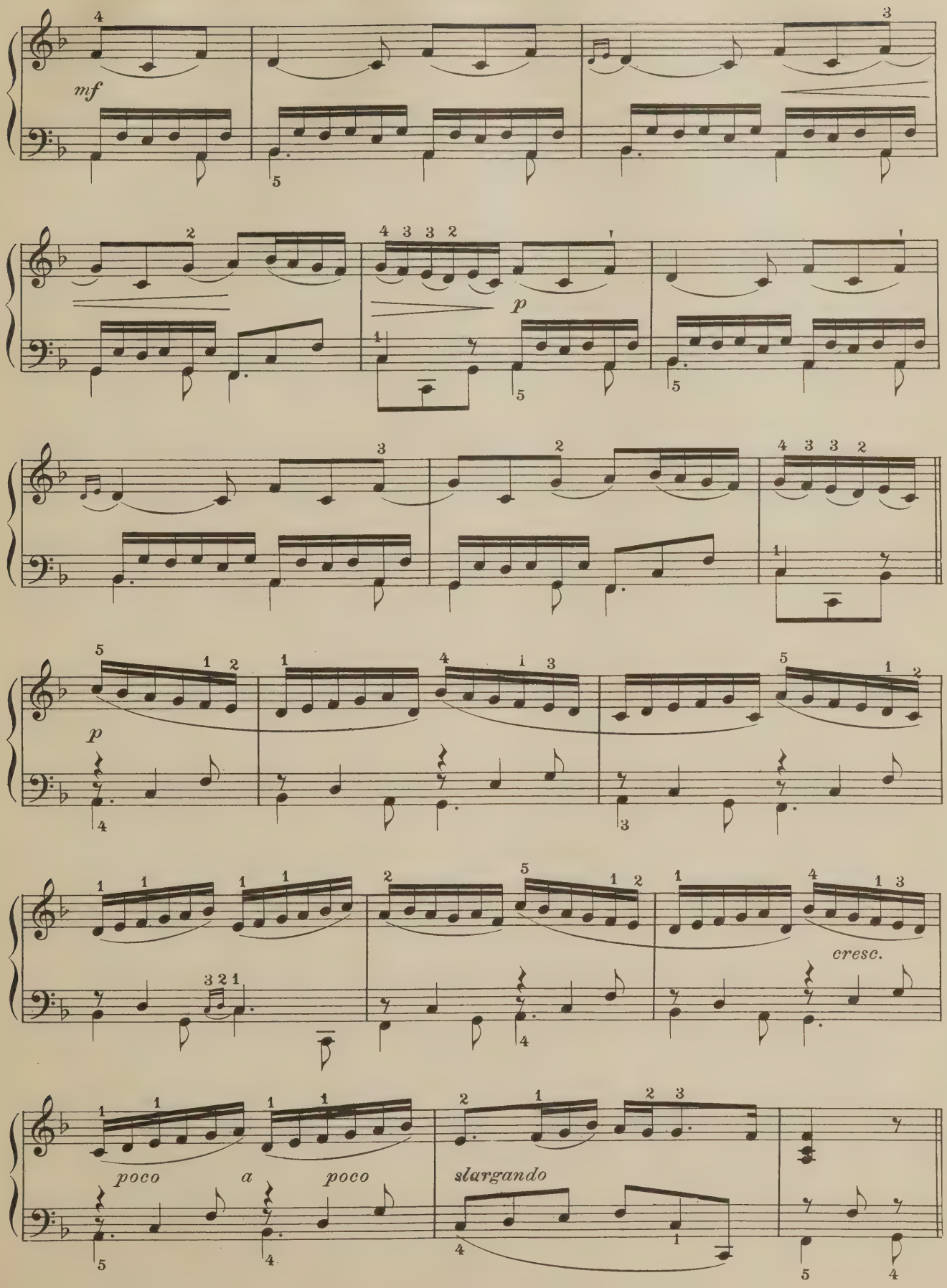
SOEUR MONIQUE

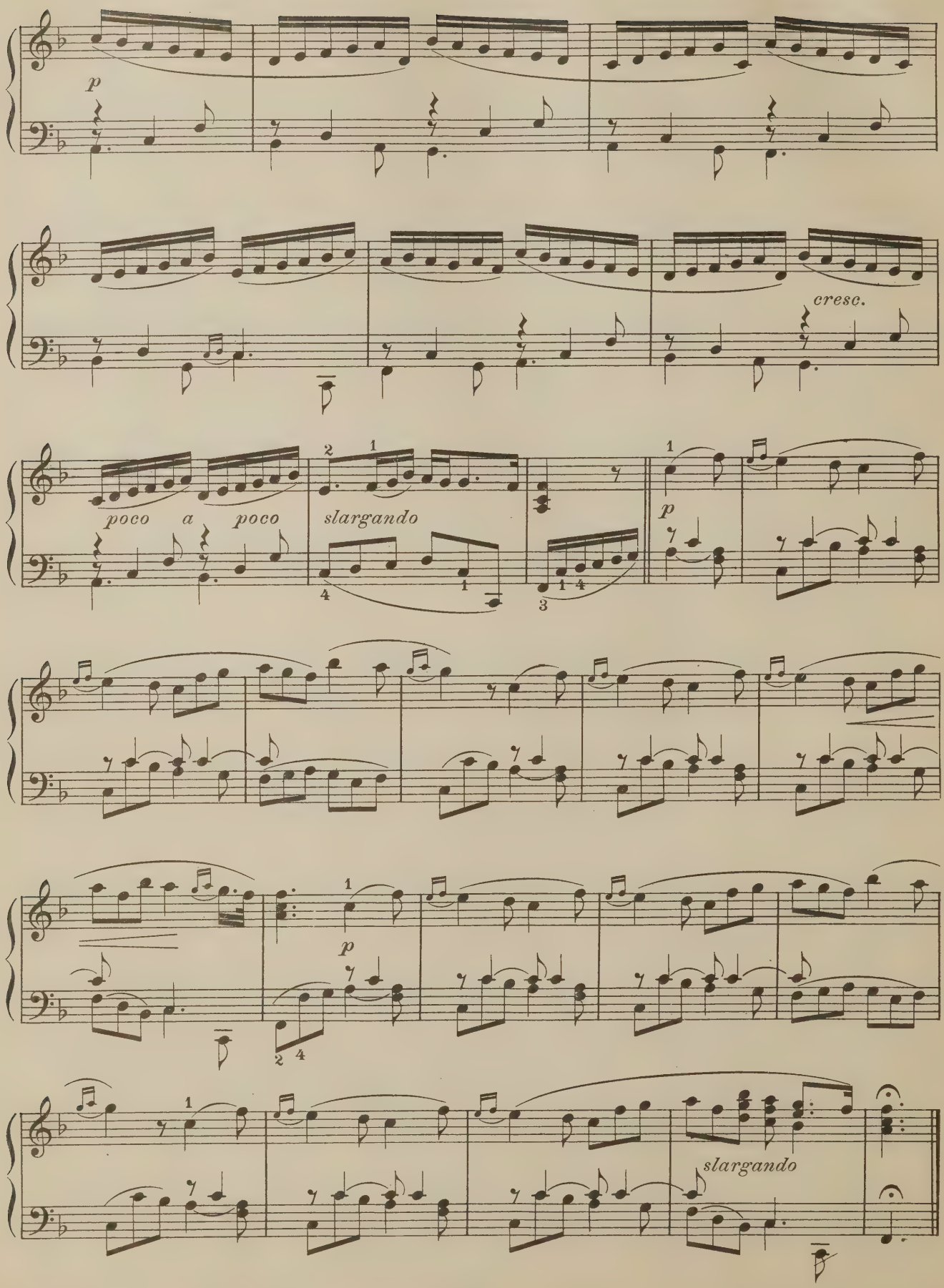
Rondo

F. COUPERIN



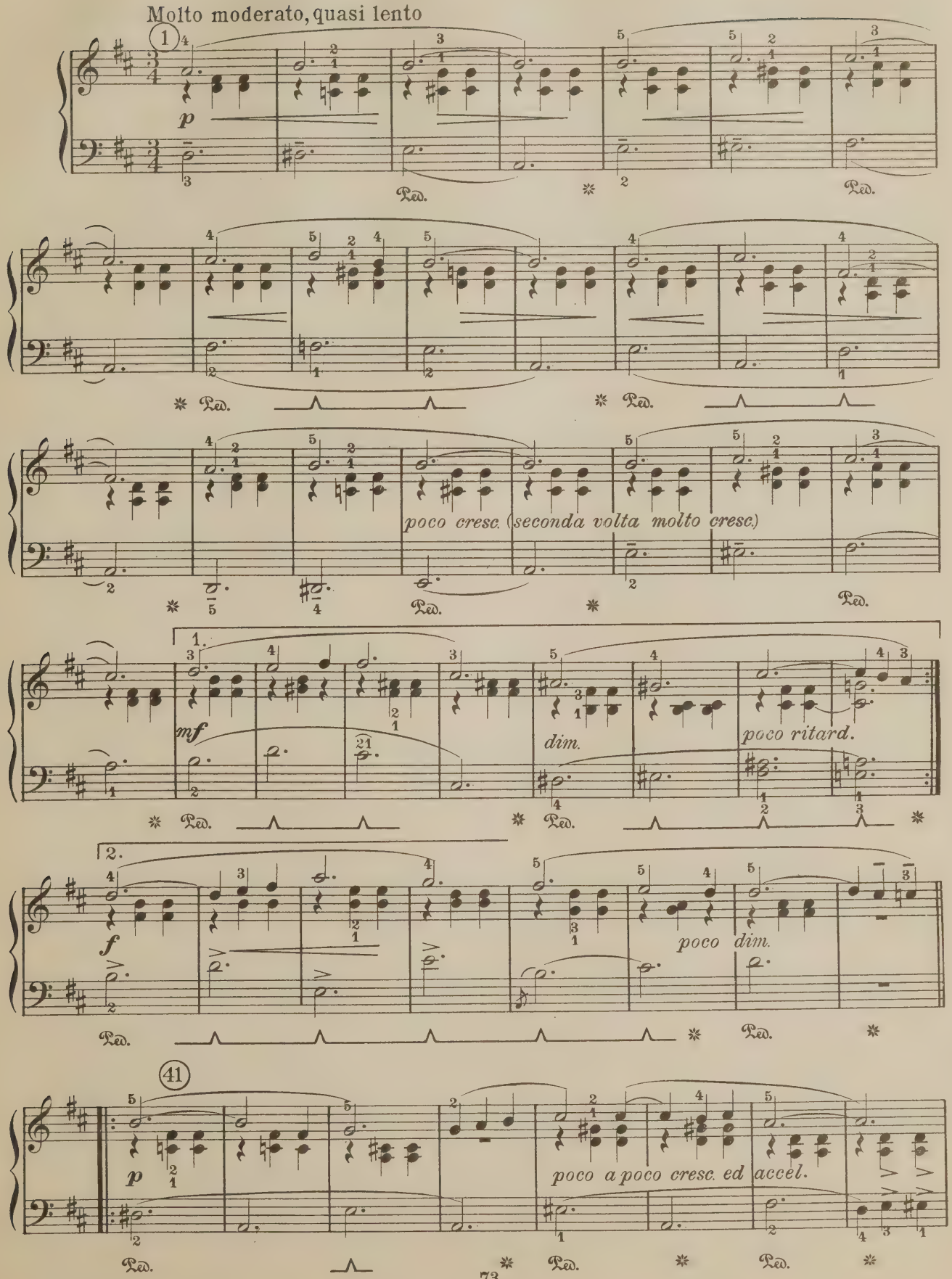

p
pp
mf
p
p
mf
cresc.
f
tr
p


mf
p
p
cresc.
poco a poco
slargando


p
cresc.
poco a poco
slargando
p
p
slargando

WALTZ SERENADE

POLDINI



f
Ped.
poco a poco dim.
rall.
76
p a tempo
pp
1
2
93
dolciss.
pp smorz.
ppp

Example No. 2

Major Scales in Single Sixths: nine-note lengths

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3 1197 22395 8346